

M/053/004

WILLIAM B. PRINCE
(801) 933-7370
FAX (801) 933-7373
prince.william@dorsey.com

December 10, 2003

VIA MESSENGER

Mary Potter
Secretary
Board of Oil, Gas and Mining
Utah Department of Natural Resources
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114

Re: Request for Agency Action by Teck Cominco American, Inc. (M/053/004)

Dear Ms. Potter:

On behalf of Teck Cominco American, Inc. ("Teck Cominco"), pursuant to Utah Administrative Code Rules R614-105-100, R641-105-600 and R641-105-500, enclosed are original and 14 copies of the following documents for consideration by the Board:

1. In the matter of the Request for Agency Action by Teck Cominco American, Inc. for an extension of the suspension period under the approved Notice of Intention for the Apex Mine in Washington County, Utah; and
2. Petitioner's Exhibits in Support of Request for Agency Action.


Copies of these documents have also been provided to the Division of Oil, Gas and Mining, its counsel and counsel for the Board. Teck Cominco respectfully requests that this matter be heard at the Board hearing scheduled for January 28, 2004. It is not currently expected that any discovery will be required.

If you have any questions regarding this matter, please contact me at your convenience.

Very truly yours,


William B. Prince

Enclosures

cc:  D. Wayne Hedberg w/enc.
Stephen Schwendiman w/enc.
Steven F. Alder w/enc.
Bruce DiLuzio w/enc.
Dave Godlewski w/enc.
Cathy Suda w/enc.

RECEIVED

DEC 11 2003

DIV. OF OIL, GAS & MINING

**BEFORE THE BOARD OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH**

In the Matter of the Request for Agency
Action by Teck Cominco American
Incorporated for an Extension of the
Suspension Period under the Approved
Notice of Intention for the Apex Mine in
Washington County, Utah

**Petitioner's Exhibits in Support of
Request for Agency Action**

Docket No. _____

Cause No. M/053/004

Pursuant to Utah Administrative Code Rules R641-105-500, Petitioner Teck Cominco American Incorporated ("Teck Cominco") hereby submits the following exhibits in support of its Request for Agency Action in this matter:

Exhibit 1 – Apex Mine Map

Exhibit 2 - Teck Cominco/Penarroya Joint Venture Operating Agreement

Exhibit 3 – Notice of Intention to Commence Mining Operations and Mining and Reclamation Plan

Exhibit 4 – Approval of SGMCMining and Reclamation Plan

Exhibit 5 – Approval of Hecla Reclamation Contract and Reclamation Bond

Exhibit 6 – Approval of Teck Cominco Reclamation Contract and Reclamation Bond

Exhibit 7 – Letter dated March 21, 2002 from Catherine Suda, Teck Cominco Geologist

Exhibit 8 – Telephone Memorandum from Doug Jensen, Division Reclamation Specialist

Exhibit 9 – Site Visit Letter dated September 4, 2003 from Doug Jensen

Exhibit 10 – Apex Mine 2003 Remediation Issues Report prepared by David Godlewski

Exhibit 11 – Teck Cominco's 2002 Annual Report of Mining Operations

Exhibit 12 – Apex Mine Reclamation Contract effective February 22, 2002.

Exhibit 13 – Apex Mine Surety Bond effective December 9, 2003

Exhibit 14 – Excerpts from Teck Cominco Ltd.'s 2002 Annual Report

Exhibit 15 – Utah Administrative Code R613-1M-7

Exhibit 16 – Utah Administrative Code R647-4-117

DORSEY & WHITNEY LLP

A handwritten signature in black ink, appearing to read 'W. B. Prince', is written over a horizontal line.

William B. Prince

Attorney for Teck Cominco American Incorporated

Address of Petitioner:

Teck Cominco American Incorporated
15918 East Euclid Avenue
Spokane, Washington 99216-1815

Address of Petitioner's Attorney:

Dorsey & Whitney LLP
170 South Main Street, Suite 900
Salt Lake City, Utah 84101

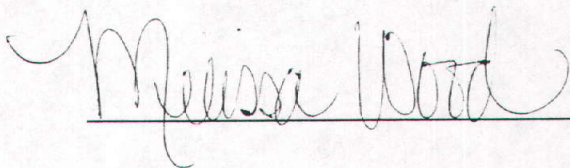
CERTIFICATE OF SERVICE

I hereby certify that on this 10th day of December, 2003, I caused to be hand delivered a true and correct copy of the foregoing PETITIONER'S EXHIBITS IN SUPPORT OF REQUEST FOR AGENCY ACTION (M/053/044), to:

D. Wayne Hedberg
Permit Supervisor
Mineral Regulatory Program
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Stephen Schwendiman
Assistant Attorney General
160 East 300 South, 5th Floor
P.O. Box 140815
Salt Lake City, Utah 84114-0815
Attorney for the Board of Oil, Gas and Mining

Steven F. Alder, Esq.
Assistant Attorney General
1594 West North Temple, Suite 300
Salt Lake City, Utah 84116
Attorney for the Division of Oil, Gas and Mining

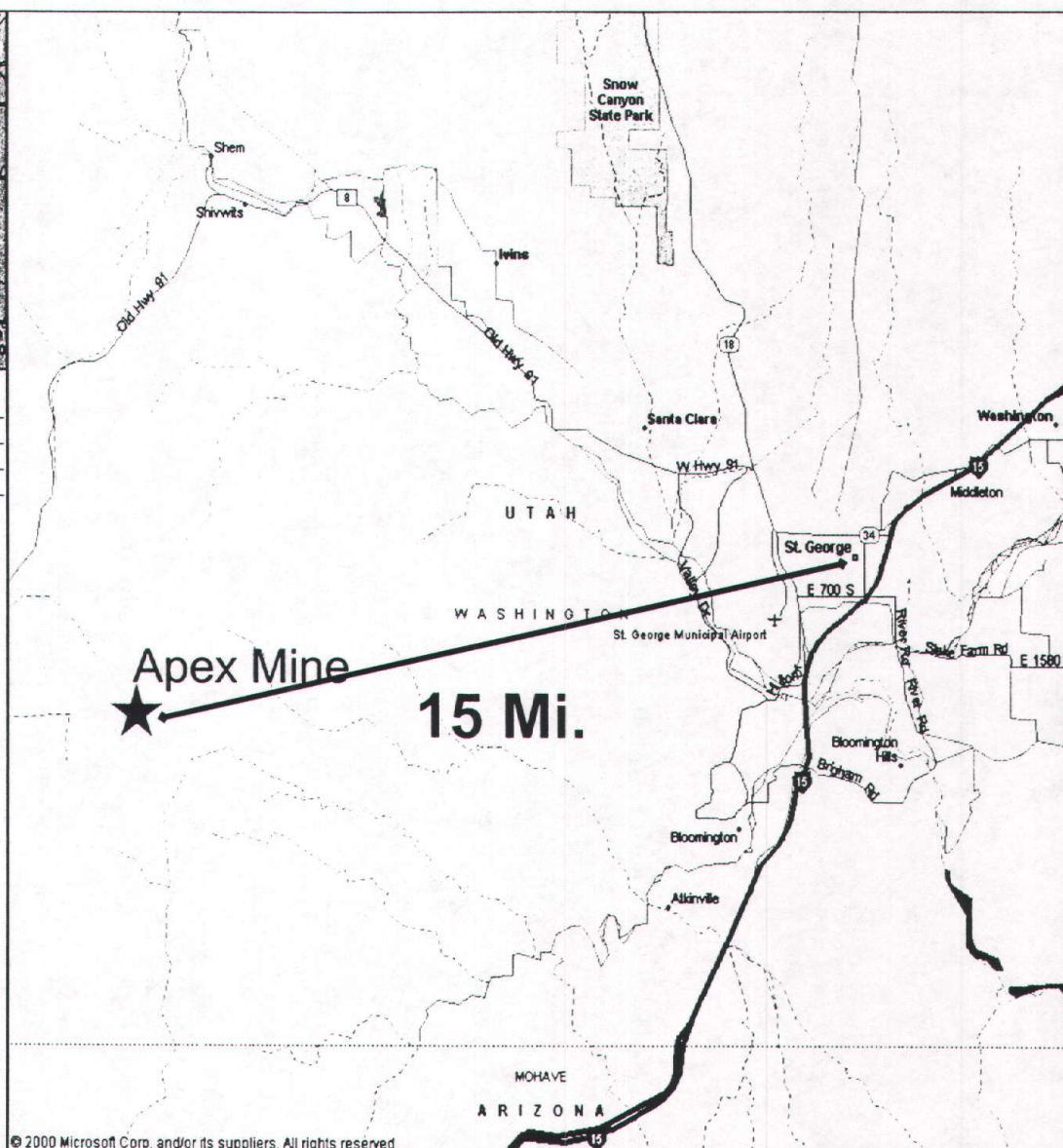


teckcominco

Location



- Populated Places
- Boundaries
- Transportation
- Parks and Reserves
- Miscellaneous



JOINT VENTURE OPERATING AGREEMENT

THIS AGREEMENT is dated as of December 3, 1997, but is made effective as of September 18, 1996, between COMINCO AMERICAN INCORPORATED, a Washington corporation ("CAI"), and PENARROYA UTAH, INC., a Utah corporation ("PENARROYA").

RECITALS

PENARROYA and CAI are successors in interest to an option to acquire the Apex germanium mine property (located in Washington County, Utah, more particularly described in Exhibit A) from the Hecla Mining Company under the terms of an option agreement dated December 8, 1995 (the "Option").

B. PENARROYA and CAI agreed to jointly exercise the Option, and Hecla Mining Company conveyed the Apex mine property to PENARROYA and CAI, each as to fifty percent (50%), on or about September 20, 1996. PENARROYA and CAI desire and intend to contribute the Apex mine property to the Venture described in this Agreement and to participate in the exploration, evaluation, development, mining and processing of mineral resources that may be located on, in, or under the Area of Interest, or any other mining properties hereafter acquired pursuant to the terms of this Agreement.

C. PENARROYA and CAI have entered into a Memorandum of Understanding dated September 18, 1996 (the "MOU"), and a Supplementary Agreement dated September 18, 1996 (the "Supplementary Agreement"). PENARROYA and CAI desire and intend that this Agreement amend, restate as amended, and supersede both the MOU and Supplementary Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and promises contained herein, the parties signatory hereto agree as follows:

ARTICLE 1

DEFINITIONS

1.0 **Definitions.** In addition to the terms defined elsewhere in this Agreement, as used herein the following terms shall have the following meanings:

1.1 The term "Accounting Procedures" means the methods and procedures of accounting set forth in Exhibit C. If there arises any conflict between the terms of the Accounting

thirty (30) days after the meeting. The minutes, when signed by all Participants, shall be the official record of the decisions made for the Management Committee and shall be binding on the Operator and the Participants.

ARTICLE 10

OPERATOR

10.0 Operator.

10.1 CAI as the Operator. CAI shall be the Operator and, except as otherwise provided in Section 10.9, shall remain the Operator for so long as no other Participant has a greater Interest in the Venture. Any successor Operator to CAI appointed pursuant to the terms of this Agreement may be but shall not be required to be a Participant hereunder.

10.2 Relationship to Participants.

a. The Operator shall act in its own name and shall have the sole right to represent the Venture with third parties. The Operator shall allow the Participants, at their sole risk and expense, and subject to reasonable safety regulations, to inspect the Assets at all reasonable times, so long as they do not unreasonably interfere with the operations of the Venture.

b. The Operator shall acquire and hold record title to the Assets in its own name as nominee on behalf of the Participants in proportion to their Interests and for the purposes of the Venture. Concurrently with the execution of this Agreement, the Participants and the Operator have entered into the "Nominee Agreement" substantially in the form of Exhibit G evidencing this relationship. The Operator shall record the Nominee Agreement in the real property records maintained by the county recorders of the counties in which the Venture acquires Properties.

10.3 Rights and Duties of the Operator. Subject to the other terms of this Agreement and compliance with the Programs and Budgets adopted hereunder, and subject to its receipt of necessary funds, the Operator shall have the following rights and duties:

a. The Operator shall consult with the Management Committee when the Operator deems it appropriate.

b. The Operator shall perform all acts necessary or convenient to conduct Exploration, Development, and Mining, as well as prepare the Programs and Budgets with respect thereto, under this Agreement.

real or personal property under this Agreement must be exercised, if at all, so as to vest such interest in the acquirer within twenty (20) years after the Effective Date.

17.12 Further Assurances. Each of the Participants agrees to take such actions and to execute such additional instruments as may be reasonably necessary or convenient to implement and carry out the intent and purpose of this Agreement.

17.13 Memorandum Agreement. As may be required by applicable local, state or federal law, or as may be deemed necessary or prudent by the Operator for purposes of conducting the operations of the Venture, the Operator shall prepare and the Participants shall execute a short form of this Agreement. At the Operator's option and from time to time, the Operator shall cause a short form of this Agreement to be filed or recorded. No Participant will file or record the full text of this Agreement, or any portion thereof (except the Nominee Agreement).

IN WITNESS WHEREOF, the signatory parties hereto have executed this Agreement effective as of the Effective Date.

COMINCO AMERICAN INCORPORATED

By [Signature]
Its Secretary

PENARROYA UTAH, INC.

By [Signature]
Its President and Secretary

STATE OF WASHINGTON)

COUNTY OF SPOKANE)

: ss

I certify that I know or have satisfactory evidence that C. Bruce Davis is the person who appeared before me and said person acknowledged that he/she signed this instrument, on oath stated that he/she was authorized to execute the instrument and acknowledged it as the Secretary of COMINCO AMERICAN INCORPORATED to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated: 12.3.97

[Signature]
Notary Public in and for the State
of Washington, residing at Spokane.
My Commission Expires: July, 1998

STATE OF Washington)
COUNTY OF Snohomish) : ss

The foregoing instrument was acknowledged before me this 3rd day of December, 1997, by RICK, the President of PENARROYA UTAH, INC., a Utah corporation.
K. H. FORREMAN, on behalf of the Corp. Secretary
U. A. Rankell
Notary Public

My Commission Expires: July 1998

APEX MINE
NOTICE OF INTENTION TO COMMENCE
MINING OPERATIONS AND
MINING AND RECLAMATION PLAN

Prepared for
Utah Department of Health

February 1984

ST. GEORGE MINING CORPORATION

50 East 100 South • St. George, Utah 84770
(801) 628-3239

February 10, 1984

Mr. James W. Smith, Jr., Coordinator
Mined Land Development
State of Utah
Natural Resources & Energy
Oil, Gas & Mining
4241 State Office Building
Salt Lake City, Utah 84114

RE: ST. GEORGE MINING CORPORATION, APEX MINE PROJECT
NOTICE OF INTENTION TO COMMENCE MINING OPERATIONS AND
MINING AND RECLAMATION PLAN

Dear Mr. Smith:

Please find enclosed two copies of St. George Mining Corporation's Notice of Intention to Commence Mining Operations and Mining and Reclamation Plan for the Apex Mine, located near St. George, Washington County, Utah. St. George Mining Corporation intends to reopen and develop the Apex Mine to mine ore for the extraction of gallium/germanium, copper, zinc, and silver. The ore will be processed in a separate facility located on the Shivwits Indian Reservation which has not been included in this application, as the land is under the jurisdiction of the U.S. Bureau of Indian Affairs.

After your initial review of our application, we would be happy to meet with your review team to discuss concerns and questions about the Notice of Intent application and proposed mining operations, and to provide additional information if required.

Thank you for your attention and review of our application. We are pleased to work within the State of Utah and to develop a mine that will be of benefit to the State and local area of St. George.

Sincerely,



H. Lutz Klingmann, President
St. George Mining Corporation

LK/
Enclosures

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES AND ENERGY
DIVISION OF OIL, GAS AND MINING
4241 State Office Building
Salt Lake City, Utah 84114
Telephone: (801) 533-5771

NOTICE OF INTENTION TO COMMENCE MINING OPERATIONS
and
MINING AND RECLAMATION PLAN

Based on Provisions of the Mined Land Reclamation Act, Title 40-8, Utah Code Annotated 1953, General Rules and Regulations and Rules of Practice and Procedures, By Order of the Board of Oil, Gas and Mining.

Mine Name: Apex Project Mine Plan Date: _____
File No.: ACT/_____/____ Date Received: _____
Operator: St. George Mining Corp. DOGM Lead Reviewer: _____
Mineral(s) to be Mined: Gallium, germanium, copper, zinc, silver

Please attach other sheets as needed and include cross-reference page numbers when used.

1. Name of Applicant or Company: St. George Mining Corp.
Corporation (X) Partnership () Individual ()
2. Address: Permanent: 50 East 100 South
St. George, Utah 84770
Temporary: _____

3. Company Representative: Name: H. Lutz Klingmann
Title: President and Director
Address: 405-750 W. Pender Street Phone: 604/689-7842
Vancouver, B.C., Canada V6C 2T7
4. Location of Operation: County(ies) Washington County, Utah
Township(s): 43 S Range(s): 17 W Section(s): 6 and 7
Township(s): 43 S Range(s): 18 W Section(s): 1 and 12
Township(s): _____ Range(s): _____ Section(s): _____
5. Owner(s) of record of the surface area within the land to be affected:
Name: St. George Mining Corp. Address: Same as above
Name: _____ Address: _____
Name: _____ Address: _____
Name: _____ Address: _____

6. Owner(s) of record of the minerals to be mined:

Name: St. George Mining Corp. Address: Same as above
 Name: _____ Address: _____
 Name: _____ Address: _____
 Name: _____ Address: _____

7. Owner(s) of record of all other minerals, including oil and gas, within any part of the land to be affected:

Name: None Address: _____
 Name: _____ Address: _____
 Name: _____ Address: _____

8. Have the above owners been notified in writing? () Yes, () No. If no, why not? Not applicable

9. Have you or any other person, partnership or corporation associated with you received an approval of a Notice of Intention to Commence Mining Operations by the State of Utah for operations other than described herein? () Yes, (X) No. If yes, list all approval numbers now under surety:

10. Source of Operator's legal right to enter and conduct operations on the land to be covered by this Notice:

Patented and unpatented mining claims of the Apex and Surprise group owned by St. George Mining Corp. - 1872 Mining Law - see Exhibit A and attached claims map.

11. Give the names and mailing addresses of every principal Executive, Office, Partner (or person performing a similar function) of Applicant:

	Name	Title	Address
A.	<u>Mr. R. L. Ridge</u>	<u>Representative</u>	<u>Sutler, Axland, Armstrong & Han</u>
B.	<u></u>	<u></u>	<u>175 South West Temple</u>
C.	<u>Musto Exploration Ltd.</u>	<u>Parent Company</u>	<u>Salt Lake City, Utah 84110</u>
D.	<u></u>	<u></u>	<u>405-750 W. Pender Street</u>
	<u></u>	<u></u>	<u>Vancouver, B.C. Canada V6C 2T7</u>

12. Has the Applicant, any subsidiary or affiliate or any person, partnership, association, trust or corporation controlled by or under common control with the Applicant, or any person required to be identified by Item 11 ever had an approval of a Notice of Intention to Mine or Explore withdrawn or has surety relating thereto ever been forfeited? () Yes, (X) No.

If yes, please explain: _____

Please note: Section 40-8-13 of the Act provides that information relating to the location, size or nature of the deposit, and marked confidential by the Operator, shall be protected as confidential information by the Board and the Division and not be a matter of public record in the absence of a written release from the Operator, or until the mining operation has been terminated as provided in Subsection (2) of Section 40-8-21 of the Act. This material should be so marked and included on separate cross-referenced sheets.

13. All maps and plans prepared for submission shall be of adequate scale and detail to show topographic features and clearly indicate the following details:

- A. Location and delineation of the extent of the land previously affected, as well as the proposed surface disturbance.
- B. Existing active or inactive, underground or surface mined areas.
- C. Boundaries of surface properties, including ownership.
- D. Names and locations of:
 - (1) Lakes, rivers, streams, creeks and springs.
 - (2) Roads, highways and buildings.
 - (3) Active or abandoned facilities.
 - (4) Transmission lines within 500 feet of the exterior limits of land affected.
 - (5) Gas and/or oil pipelines.
 - (6) Site elevation.
- E. Drainage patterns of land affected:
 - (1) Overburden or topsoil removal and storage areas.
 - (2) Areas susceptible to erosion.
 - (3) Natural waterways.
 - (4) Constructed drainages, diversions, berms and sediment ponds (design calculations shall be included).
 - (5) Receiving waters (State Health classification).
 - (6) Directional flow of all surface waters (indicated by arrows).
- F. Known drill holes:
 - (1) Location.
 - (2) Status.

*on map
but status unknown*

- (3) Depths and thicknesses of:*
- Water bearing strata.
 - Mineral deposits.
 - Toxic or potentially toxic materials.
 - Surficial or plant supporting material (topsoil and subsoil).
- G. Locations of disposal and stockpile areas:
- Topsoil and subsoil storage areas.
 - Overburden storage area.
 - Waste, tailings, rejected materials.
 - Raw ore stockpile(s).
 - Tailings-ponds and other sediment control structures.
 - Discharge points, water effluents (see #15[D]).

All maps should have a color code or other suitable legend used in preparation to clearly indicate surface features of the land affected. A general reference map completed on a 7.5 (1:24,000) USGS quadrangle sheet is recommended with additional large scale maps included for practical delineation of individual facilities, (e.g., 1:200, 1:500).

14. Acreage to be disturbed:

- A. Minesite (operating, storage, disposal areas, etc.): 6.0 acres (existing), 1.0 acre new
- B. Access/haul roads/conveyors: 0.3 acre (existing)
- C. Associated on-site processing facilities: Not applicable

15. Describe mining method to be employed, including:

- A. Mining sequence:
- Map delineating the yearly sequential disturbance (if surface mine) and/or surficial disturbance.
 - Narrative (including on-site processing or mineral treatment):

See Exhibit B - Project Description and Mine Plan

Attach supplemental sheets and/or diagrams as necessary with cross reference to page number here: _____.

*Stratigraphic or lithologic logs if correlated to footage depths may be presented when labeled (maps or logs should be labeled confidential, if so desired).

B. If sedimentary deposit seam(s):

(1) Thickness(es): Five to sixty ft of mineralization

(2) Dip: 70 degrees to west (see Exhibit B)

(3) Outcrop: Surface vein outcrop for 2,000 linear ft

C. Will any underground workings or aquifers be encountered? ☒ Yes, ☐ No. If yes, describe potential impacts and protection measures to be taken:

See Exhibit B. Underground aquifers will not be encountered. Underground workings will be encountered and rehabilitated as necessary to conduct mining operations.

D. Describe any active discharge or proposed discharge of water from mine or site area. Include water quality data and lab test reports. If attached sheets or reports are included, cross reference to page number here: None.

No active or proposed discharge from mine area

16. Have all necessary water rights been appropriated? ☒ Yes, ☐ No. How will water be obtained? Please explain: Water is to be obtained as part of the lease agreement for process water signed with the Shivwits Paiute Band.

17. Proposed or estimated duration of mining operation: 13 years
Will the permit term be for a lesser amount of time, subject to review? (e.g., for surety estimate reasons). ☐ Yes, ☒ No. If yes, how long?

18. Describe the construction and maintenance of access roads including:

A. Procedures (drainage and erosion control methods).

B. Cross section(s).

C. Profile(s) of proposed road grade(s).

No new roads will be constructed. Existing roads at the Apex Mine will be used.

Attach supplemental diagrams and cross reference to page number here: _____.

19. Prior land use(s): Mining, wildlife habitat grazing

Current land use(s): Mining, wildlife habitat

Possible projected or prospective future land use(s): Wildlife habitat

20. Describe methods of tree and brush removal:

Not applicable; new disturbance of less than 1 acre.

Provide estimate of, and method of obtaining existing vegetation cover (%):
See Exhibit C - Soil and Vegetation Report

What types of dominant vegetation are present? See Exhibit C

Photographs and/or maps may be attached to these forms, cross reference to page number here: _____.

21. Soils (surficial plant supportive material) and overburden: Except where slope or rocky terrain make it impossible, all surficial materials suitable as a growth medium shall be removed, segregated and stockpiled according to its ability to support vegetation (as determined by soil analysis and/or practical revegetation experience) prior to any major excavation. (Suggested minimum requirements are the top six inches, or the "A" horizon, whichever is larger.)

A. What is the pH range of the soil before mining? See Exhibit C
Name of person or agency and method of determining pH: Not applicable

Attach lab report if available. Cross reference page number here: _____.

B. Average depth of topsoil and subsoil to be stripped and stockpiled: Not applicable. Calculated volume of soil to be stockpiled: _____.

C. Describe the method for removing and stockpiling topsoil and subsoil, including measures to protect topsoil from wind and water erosion, compaction and pollutants: Not applicable

D. Describe the method for removing and stockpiling overburden. Describe and discuss the acidity or alkalinity (pH) or other characteristics which would affect revegetation:

It will not be necessary to remove or stockpile overburden.

Existing mine waste material will be used to fill in mined-out portions of the workings (see Exhibit B). See Exhibit D for discussion of revegetation.

- E. Rock subjected to processing such as waste rock, tailings, etc., and which is to be disposed of on- or off-site must be subjected to a toxicity analysis. The method of determination, results and suitable disposal methods must be explained in detail, including means for containment and long range stability*: See Exhibit B

Processing at the mine site will involve only screening and crushing. All further operations will take place at the processing facility located north of the mine on land leased from the Shivwits Indian Reservation.

22. Describe the methods used to minimize public safety and welfare hazards during and after mining operations including:

- A. Shaft, tunnel and drill hole closure.
- B. Disposal of trash, scrap metal and wood and extraneous debris, waste oil and solvents, unusable buildings and foundations, sewage and other materials incident to mining.
- C. Posting of appropriate warning signs and/or fences or berms to act as barriers (e.g., above highwalls) in locations where public access is available.

See Exhibit D - Reclamation Plan

Atmosphere: Planning of exploration holes

*"Toxic" means any chemical or biological or adverse characteristic of the material involved which could reasonably be expected to negatively affect ecological or hydrological systems or could be hazardous to the public safety and welfare.

23. Grading and soil redistribution.

- A. Attach pre- and postmining contour cross sections, typical of regrading designs. Cross reference to page number here: Not applicable
- B. Describe the method(s) of overburden replacement and stabilization and highwall elimination, including: (a) slope factors; (b) lift heights; (c) compaction; (d) terracing, etc., (e) also include testing procedures: Not applicable
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- C. What method of spreading topsoil and subsoil or upper horizon material on the regraded area will be employed? Not applicable
- _____
- _____
1. Indicate the approximate depth of soil cover after final surfacing Not applicable inches.
2. What tests will be performed to adequately evaluate the potential of the soil to successfully support intended revegetation? Not applicable
- _____
- _____
3. What soil amendments or fertilizers will be needed as an aid to revegetation?
- Type: Not applicable Rate: _____
- Type: _____ Rate: _____
- Type: _____ Rate: _____
4. What additional surface preparations will be used? Describe (a) drainage, erosion and sediment control measures; (b) maximum slope characteristics; and (c) highwall reclamation.

5. Describe methods which may be particularly applicable to waste disposal areas determined to be potential problem areas.

Not applicable

- D. Describe plans for either leaving or reclaiming the roads and pads associated with the operation.

See Exhibit D - Reclamation Plan

24. Impoundments: All evaporation, tailings and sediment ponds; spoil piles, fills, pads and regraded areas shall be self-draining and nonimpounding when abandoned unless previously approved as an impounding facility by a lawful state or federal agency. In view of this, please describe the reclamation of all related areas in the operation and include pertinent items enumerated in C, 1-5 above.

None planned

25. Revegetation plans:

- A. What organization, agency or person will specifically be performing the revegetation? St. George Mining Corp.
- B. Will the affected area be subject to livestock or wildlife grazing?
(X) Yes, () No. Will vegetation protection be needed to allow for a determination of the successful revegetation criteria outlined in the Mined Land Reclamation Act, Rule M-10(12)? () Yes, (X) No. If yes, what measures will the operator take?
- C. Will irrigation be used? () Yes, (X) No. Type: _____
_____ For how long? _____

- D. Test plots initiated during the early stages of mine development provide good bases from which a successful revegetation program can be adapted for later implementation. Will test plots be employed? () Yes, (X) No. If yes, describe on an additional sheet(s) and attach. Cross reference page number here and show location on facilities map: _____.
- E. Please attach a revegetation plan and schedule including:
1. Species to be used.
 2. Rate of seed application/acre.
 3. Season to be planted.
 4. Seedbed preparation techniques.
 5. Planting location, slope face direction, variability, method of application, covering, etc.
 6. Mulch and fertilizer application, if used.
- F. Describe any other maintenance procedures which may be used, if needed, to guarantee successful revegetation:

26. Please provide a reclamation schedule including:

- A. Estimated time for construction.
- B. Estimated time for interim reclamation.
- C. Estimated duration of the mining operation.
- D. A time table for the accomplishment of each major step in the reclamation plans. Attach the schedule and cross reference to the page number here: See Exhibit B.

27. A surety guarantee must be provided for the mining operation (see Rule M-5 Mined Land Reclamation Act). In calculating this amount, the Division will consider the following major steps based on the information provided in this report:

- A. Clean up and removal of structures.
- B. Backfilling, grading and contouring.
- C. Topsoil and subsoil redistribution and stabilization.
- D. Revegetation (i.e., preparation, seeding, mulching, irrigation).
- E. Labor.
- F. Safety and fencing.
- G. Monitoring, and reseeding if necessary.

To assist the Division, the operator may attach a list of costs and factors which would satisfy these areas. Substantiation of these factors, i.e., unit costs and how they are derived, should accompany the list. Cross reference the page number here: See Exhibit D

28. A request for a variance from specific commitments to Rule M-10 (Reclamation Standards) of the Mined Land Reclamation Act may be submitted with adequate written justification. If after presentation of information adequately detailing the situation, a determination is made that finds a portion of the rule inapplicable, a variance may be granted by the Division.

I hereby commit the applicant to comply with Rule M-10, "Reclamation Standards" in its entirety, as adopted by the Board of Oil, Gas and Mining on March 22, 1978.

The applicant will achieve the reclamation standards for the following categories as outlined in Rule M-10 on all areas of land affected by this mine, unless a variance is granted in writing by the Division.

<u>Rule</u>	<u>Category of Commitment</u>	<u>Variance Requested?</u>
M-10(1)	Land Use	
M-10(2)	Public Safety and Welfare	
M-10(3)	Impoundments	
M-10(4)	Slopes	
M-10(5)	Highwalls	
M-10(6)	Toxic Materials	
M-10(7)	Roads and Pads	
M-10(8)	Drainages	
M-10(9)	Structures and Equipment	
M-10(10)	Shafts and Portals	
M-10(11)	Sediment Control	
M-10(12)	Revegetation	
M-10(13)	Dams	Yes
M-10(14)	Soils	Yes

I believe a variance is justified on a site-specific basis for the previous subsections of Rule M-10 as indicated. A narrative statement explaining these concerns is attached.

STATE OF Utah

COUNTY OF Washington

I, H. Lutz Klingmann, having been duly sworn depose and attest that all of the representations contained in the foregoing application are true to the best of my knowledge; that I am authorized to complete and file this application on behalf of the Applicant and this application has been executed as required by law.

Signed: H. Klingmann

Taken, subscribed and sworn to before me the undersigned authority in my said county, this 22 day of February, 1984.

Notary Public: Genevieve L. Lottin
14126 W. 2nd Ave.
Golden, CO 80401

My Commission Expires: _____
My Commission expires July 18, 1986

PLEASE NOTE:

Section 40-8-13(2) of the Mined Land Reclamation Act provides for maintenance of confidentiality concerning certain portions of this report. Please check to see that any information desired to be held confidential is so labeled and included on separate sheets or maps.

Only information relating to the location, size or nature of the deposit may be protected as confidential.

Confidential Information Enclosed: (X) Yes () No

APEX PROJECT
NOTICE OF INTENTION TO COMMENCE MINING OPERATIONS AND RECLAMATION PLAN
STATE OF UTAH APPLICATION
CROSS REFERENCE GUIDE TO EXHIBITS AND ATTACHMENTS

- 10) Exhibit A - Claims Map and List of Claims.

- 13) A. Surface conditions and geological map (Figure B-3) and proposed layout of surface facilities (Figure B-4) in Exhibit B, Project Description and Mine Plan.

- B. East-west section of main shaft (Figure B-2) in Exhibit B.

- C. Claims map (Figure A-1) in Exhibit A, Claims Information.

- D.
 - (1) Surface hydrology (Figure E-1) in Exhibit E, Surface Hydrology Report.
 - (2) Mine location map (figure B-1) and surface conditions and geological map (figure B-3) in Exhibit B.
 - (3) See (2) above and east-west section of main shaft (Figure B-2) in Exhibit B.
 - (4) An existing powerline of 12,500 volts directly to the Apex property terminates at the point marked on Figure B-3 in Exhibit B. This existing power line will eventually carry 34,500 volts during mine operation.
 - (5) Not applicable.
 - (6) Mine location map (figure B-1) in Exhibit B.

- E.
 - (1) Not applicable.
 - (2) Not applicable.
 - (3) Surface hydrology (Figure E-1) in Exhibit E.
 - (4) Exhibit E, Surface Hydrology Report.
 - (5) Not applicable.
 - (6) Not applicable.

- F. (1) Not applicable.
- (2) Not applicable.
- (3) (a) Not applicable.
- (b) Vertical longitudinal section of recoverable reserves (Figure B-4) in Exhibit B - Confidential.
- (c) Not applicable.
- (d) Not applicable.

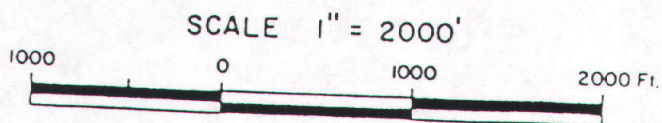
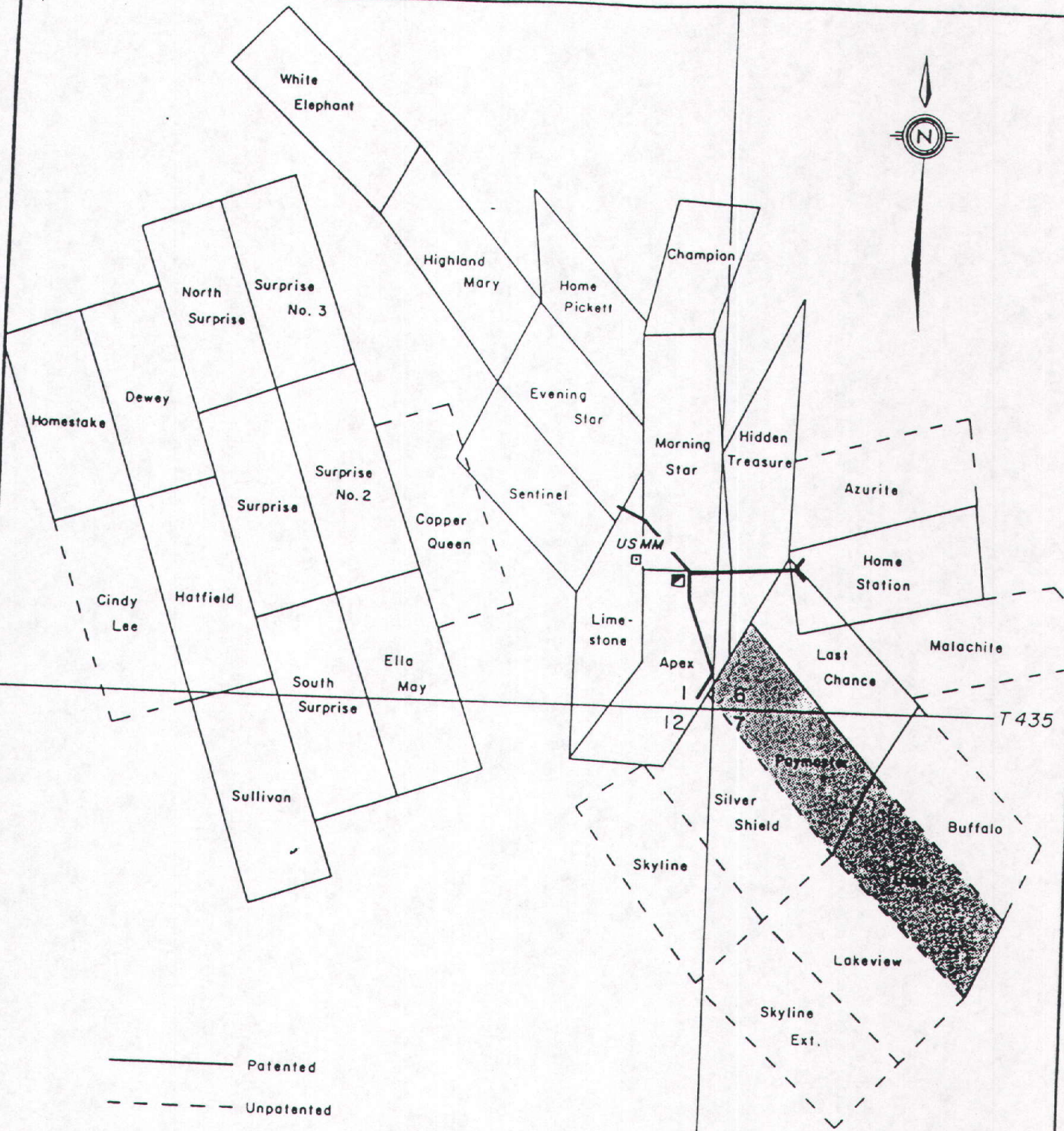
- G. (1) Not applicable.
- (2), (3), and (4) Proposed surface facilities (Figure B-5) in Exhibit B.
- (5) Exhibit E, Surface Hydrology Report.
- (6) Not applicable.

- 15) Exhibit B, Project Description and Mine Plan.
- 20) Exhibit C, Soil and Vegetation Characteristics.
- 21) Exhibit C, Soil and Vegetation Characteristics, Exhibit D, Reclamation Plan.
- 22) Exhibit D, Reclamation Plan
- 23) Exhibit D, Reclamation Plan.
- 24) Exhibit D, Reclamation Plan.
- 25) Exhibit D, Reclamation Plan - St. George Mining Corporation respectfully requests a variance to be granted for the Apex Mine with respect to Sections (12), Revegetation, and (14), Soils, of Rule M-10 - Reclamation Standards - of the Mined Land Reclamation Acts. The reasons for these variance requests as stated in Exhibit D, Reclamation Plan, are as follows.
 - 1) The surface facilities will be built on the existing mine lower portal area and lower mine waste dump with less than 1 acre of new

disturbance. The soil that existed before the original mining has been lost.

- 2) There is no topsoiling material in the mine area that can be obtained without disturbing new areas. The existing soils are variable, discontinuous, and cannot be stripped or stockpiled. Soil cover at present is less than 30 percent of the mine area outside the proposed surface facilities.
 - 3) Revegetation on these steep slopes without adequate, stabilized topsoil cannot be accomplished using existing technology. Field reconnaissance in the area has shown little natural revegetation on steep disturbed slopes over the past 40 years.
 - 4) The total area of the surface mine facilities, including the upper mine waste dump, is approximately 7 acres, most of which has previously been disturbed. The loss of this amount of land area will not significantly affect the proposed land use in the area as wildlife habitat. Significant effort has been put into removing unsightly debris left from previous mining, and the proposed reclamation will provide an aesthetic land topography and contour which will blend with the regional setting.
- 27) Reclamation costs are provided in Exhibit D.
- 28) See 25) above.

EXHIBIT A
CLAIMS INFORMATION AND MAP



ST. GEORGE MINING CORPORATION		
APEX PROJECT		
CLAIM MAP		
Washington County, Utah		
DRAWN L. K.	DATE APRIL 1982	FIGURE A-1

ST. GEORGE MINING CORP.

50 East 100 South
St. George, Utah 84770

Patented and unpatented lode mining claims in Tutsagubet Mining District,
Washington County, Utah.

APEX GROUP:

Patented Claims

White Elephant
Highland Mary
Home Pickett
Evening Star
Sentinel
Morning Star
Champion
Hidden Treasure
Home Station
Limestone
Apex

Last Change

Which patented claims are embraced in Mineral Survey No. 4329.

Unpatented Claims

Azurite
Silver Shield
Sky Line
Sky Line Extension
Lake View
Buffalo

Malachite, also sometimes referred to as Malichite.

SURPRISE GROUP

Patented Claims

Surprise No. 3
North Extension of Surprise
Surprise No. 2
Surprise
Ella May
South Surprise
Dewey
Hatfield
Sullivan
Homestake

Which patented claims are embraced in Mineral Survey No. 6145

Unpatented Claims

Cindy Lee
Copper Queen

Prior Deed Reference: Book 221, Pages 937-938, Washington County,
Utah Recorder's Office

FRANCIS H. SUITTER
LEROY S. AXLAND
BRENT R. ARMSTRONG
STEWART M. HANSON, JR.
RAYMOND L. RIDGE
WILLIAM L. PRATER
DAVID R. OLSEN
CHARLES R. BROWN
BRUCE T. JONES
LARRY G. REED
JEROLD G. OLDROYD
STEVEN L. INGLEBY
J. MICHAEL HANSEN
DAMON E. COOMBS
FRANCIS J. CARNEY
J. SCOTT HUNTER
CARL F. HUEFNER
STEVEN E. TYLER
LUCY J. SKIFFINGTON
CRAIG W. ANDERSON
MICHAEL W. HOMER
DAN W. EGAN
GARY F. KENNEDY

SUITTER, AXLAND & ARMSTRONG

A PROFESSIONAL UTAH LAW CORPORATION

SEVENTH FLOOR

CLARK LEAMING OFFICE CENTER

175 SOUTH WEST TEMPLE

SALT LAKE CITY, UTAH 84101

TELEPHONE (801) 532-7300

MAILING ADDRESS:

P. O. BOX 1168, SALT LAKE CITY, UTAH 84110

CABLE ADDRESS: SAXLAW

TELECOPIER: (801) 532-7355

PARK CITY OFFICE
PARK MEADOWS PLAZA
SUITE C-200
PARK CITY, UTAH 84060
(801) 649-4000

November 8, 1983

JAN 30 1984

Musto Explorations Ltd
c/o H. Lutz Klingmann
405 - 705 West Pender Street
Vancouver, B. C. Canada V6C 2T7

RE: Coastal Mining Company

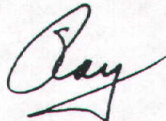
Dear Lutz:

Enclosed for your records is the original Quitclaim Deed from Coastal Mining Company which has been recorded with the Washington County Recorder's office.

Please telephone if you have any questions.

Sincerely yours,

SUITTER AXLAND ARMSTRONG & HANSON



Raymond L. Ridge

RLR:mmn

Enclosure

Unpatented Claims
Cindy Lee
Copper Queen

254566

Prior Deed Reference: Book 221, Pages 937-938, Washington County,
Utah Recorder's Office.

GRANTOR expressly reserves and retains unto itself, its successors and assigns, a carried interest equal to fifteen percent (15%) of pre-tax operating profit as provided under that certain unrecorded option agreement dated June 9, 1981, as amended, between GRANTOR, as Optionor, and Hawk Mountain Resources Ltd., as Optionee ("Agreement"); Optionee's interest under said Agreement having previously been assigned to GRANTEE. GRANTOR further expressly reserves and retains unto itself, its successors and assigns, the right to re-acquire, free of cost, a ten percent (10%) interest in the property as provided in said Agreement.

IN WITNESS WHEREOF, GRANTOR has caused these presents to be executed in its corporate name by its Vice President and Assistant Secretary, and its corporate seal to be hereunto affixed this 4th day of October, 1983.

Witnessed By:

COASTAL MINING COMPANY

Marcine F. McCarthy

BY

W. E. Welsh

Vice President

Angela R. Koon

BY

Richard E. Hahn

Assistant Secretary

This instrument was prepared
by Robert J. Ress, Jr.
36th Floor, 100 Erieview Plaza
Cleveland, Ohio 44114

STATE OF OHIO)
COUNTY OF CUYAHOGA)

The foregoing instrument was acknowledged before me this 4th day of October, 1983, by W. E. Welsh, Vice President and Richard E. Hahn, Assistant Secretary of COASTAL MINING COMPANY a Delaware corporation, on behalf of the corporation.

Marcine F. McCarthy
Notary Public

MARCINE F. MCCARTHY, Notary Public
State of Ohio, Cuyahoga County
My commission expires May 18, 1986

308

-2-

QUITCLAIM DEED

COASTAL MINING COMPANY, a Delaware corporation, with offices at 100 Erieview Plaza, 36th Floor, Cleveland, Ohio 44114, GRANTOR, hereby grants, bargains, quitclaims and conveys, without warranty of title, to ST. GEORGE MINING CORPORATION, a Utah corporation, with offices at 405 - 750 West Pender Street, Vancouver, British Columbia, Canada V6C 2T7, GRANTEE, for the sum of Ten and No/100 Dollars (\$10.00), and other valuable consideration, the following described patented and unpatented lode mining claims in Tutsagubet Mining District, Washington County, Utah, subject to any and all easements, rights-of-way and other matters of record, and further subject to the reservations hereinafter provided:

APEX GROUP:

Patented Claims

White Elephant
Highland Mary
Home Pickett
Evening Star
Sentinel
Morning Star
Champion
Hidden Treasure
Home Station
Limestone
Apex
Last Change

which patented claims are embraced in Mineral Survey No. 4329

Unpatented Claims

Azurite
Silver Shield
Sky Line
Sky Line Extension
Lake View
Buffalo
Malachite, also sometimes referred to as Malichite

SURPRISE GROUP:

Patented Claims

Surprise No. 3
North Extension of Surprise
Surprise No. 2
Surprise
Ella May
South Surprise
Dewey
Hatfield
Sullivan
Homestake

which patented claims are embraced in Mineral Survey No. 6145

RECEIVED: Sulter, Axland & Armstrong
DOCK 337 PAGE 307-308.
FEE \$1.00 MS
1983 OCT 26 AM 10:49
254566
DOCUMENT
HERBERT S. SULLIVAN
WASHINGTON COUNTY RECORDER
BY B. J. H.

APEX MINE APPLICATION
EXHIBIT B
PROJECT DESCRIPTION AND MINE PLAN

GENERAL

The proposed Apex mine project is located in the Beaver Dam Mountains approximately 14 air miles west of St. George, Utah, at approximately 5,600 ft elevation just east of the crest in Section 6, R17W, T43S (see Figure B-1). The project will put back into production the Apex mine which operated as a copper producer from the 1870's until the end of World War II. The current minerals of interest are germanium, gallium, copper, zinc, and silver. An extensive program of mapping, sampling, and underground drilling in 1982 and 1983 has delineated an economic ore body. The ore is located in the Callville limestone formation as a hydrothermally-deposited limonite/goethite mineral deposit along the Apex Fault (see Figure B-2 and Table B-1).

The old mine workings consist of two adits and eight levels of tunnels along a vertical shaft (the main shaft) and an inclined shaft down to a depth of 1,440 ft below the vein outcrop. A third shaft, the Paymaster shaft, was driven toward the Apex mine from the next drain to the southeast and also intersects the mine workings. A general east-west section through the vertical shaft is shown in Figure B-2. Only the 250-ft and 500-ft levels are partly accessible (see Figure B-2). The current surface conditions left from previous mining activities and surface geological outcrops are shown in Figure B-3.

The Apex mineralization is closely associated with the Apex vein which can be traced on surface for a distance of 2,000 ft. The mineralization occurs in the form of an irregular chimney of leached, residual iron oxide along the Apex Fault in a dolomite/limestone host rock. This zone contains from 1 to 2 percent copper and zinc, and minor amounts of antimony, bismuth, cadmium, cobalt, lead, molybdenum, nickel, titanium, tungsten, and silver. The presence of significant amounts of gallium and germanium in the Apex ores was recognized in the 1950's.

A continuous mineralized zone has been defined with a true width of up to 60 ft at the widest point and a strike length of up to 35 ft. Several narrower mineralized zones have also been defined on the hanging wall side of the main zone. The geological reserve from approximately 80 ft above the 250-ft level to the 625-ft level is 243,000 tons, which reduces to a recoverable reserve of approximately 184,000 tons. Average grades are as follows:

Gallium	- 0.039%	Arsenic	- 0.50%
Germanium	- 0.079%	Lead	- 0.77%
Copper	- 1.91%	Silver	- 1.21 oz/ton
Zinc	- 1.75%	Iron	- 17.72%

Details of the four blocks which make up the recoverable reserve of 184,000 tons are shown in Figure B-4.

In addition to the recoverable reserves outlined in Figure B-4, the existing upper mine waste dump below the 250-ft level adit contains approximately 50,000 tons of low-grade ore.

MINE DEVELOPMENT

Redevelopment of the mine will involve widening the adit on the 500-ft level and rehabilitating the underground tunnels. A decline will be driven from the 500-ft level to the 625-ft level. Allowance has been made to drill 1,800 ft of preproduction holes on the 625-ft level to further delineate the ore zone. This work will be completed in approximately 14 months.

The basic mining method is a mechanized cut and pneumatic fill. Mining will proceed upward from the 625-ft level in 8-ft mechanized cuts using a two-boom pneumatic jumbo. As the cut proceeds at one end of the ore body, cemented backfill using crushed minus-1½-inch waste will be pneumatically placed at the other end. This system of filling stoped areas is well suited to dry mines with difficult ground conditions.

Ore will be hauled to the surface and screened to eliminate oversize dolomite waste. The product will then be crushed to minus 1/2 inch and hauled to the processing facility using a standard highway dump truck of 18-ton capacity. The ore will be trucked 7.5 miles along a county road to the processing facility, which will be constructed at a site on the Shivwits Indian Reservation.

The rate of production will be 120 tons of ore per day for 255 days per year. This results in 30,600 tons per year, which will be treated at the rate of 24,000 tons per year. This allows for upgrading the ore by sorting and stockpiling some lower-grade material. A stockpile of 5,000 tons will be maintained at the mine site. This lower-grade ore stockpile will be developed on a proposed pad at the toe of the existing lower waste dump. Ore will not be processed at the mine site, except for crushing and screening.

Working stockpiles of ore, low-grade ore, and mine wastes will be maintained. The waste from the underground development will consist primarily of mixed limestone/dolomite rock. This waste material will be put on the existing lower dump which will first be leveled to provide an area for surface facilities and processing equipment. Little mine waste rock will be left on the surface. The waste rock will be crushed, screened, and used as pneumatic backfill for ground support in the mine. Water and cement will be added as required to produce a cemented backfill.

The existing upper dump containing approximately 50,000 tons of low-grade ore will be reclaimed by feeding the material downslope into the screening and crushing facility at the 500-ft level adit. Larger lumps of barren limestone/dolomite will be dumped on the existing lower dump. The processed ore from the upper dump will be trucked to the processing plant and stockpiled as a contingency reserve. This ore will provide approximately 18 months of production for the plant.

Figure B-5 shows the proposed layout of mining facilities. Outside the 500-ft portal, an area will be graded on top of the lower waste dump to accommodate the surface structures. These will include a shop, office,

changehouse, and bulk cement silo. The screening and crushing equipment, a sewage leach field, and the backfill metering equipment will also be located on this pad.

Two of the existing roads in the immediate mine area will be abandoned, as indicated on Figure B-4. The third road extending roughly $1\frac{1}{2}$ miles from the turnoff on the county road to the mine will be upgraded and used as the main access road to the mine.

There will be no water discharge from the mine, since the workings are dry and no water has been found on site. Water will be trucked to the mine in a 2,000-gallon capacity tanker and stored in two existing storage tanks with a combined capacity of 10,000 gallons. Water will be used in the mine for dust control during drilling, when backfilling, and for flushing of cuttings when diamond drilling. Drinking water will be brought to the mine in glass bottles.

Water is presently being drawn from the Santa Clara River with approval of the Director of Utilities of the City of St. George. Water for full-scale operation of the mine and processing plant will be obtained from the Santa Clara River under terms of a lease agreement which has been negotiated with the Shivwits Paiute Band and the Bureau of Indian Affairs.

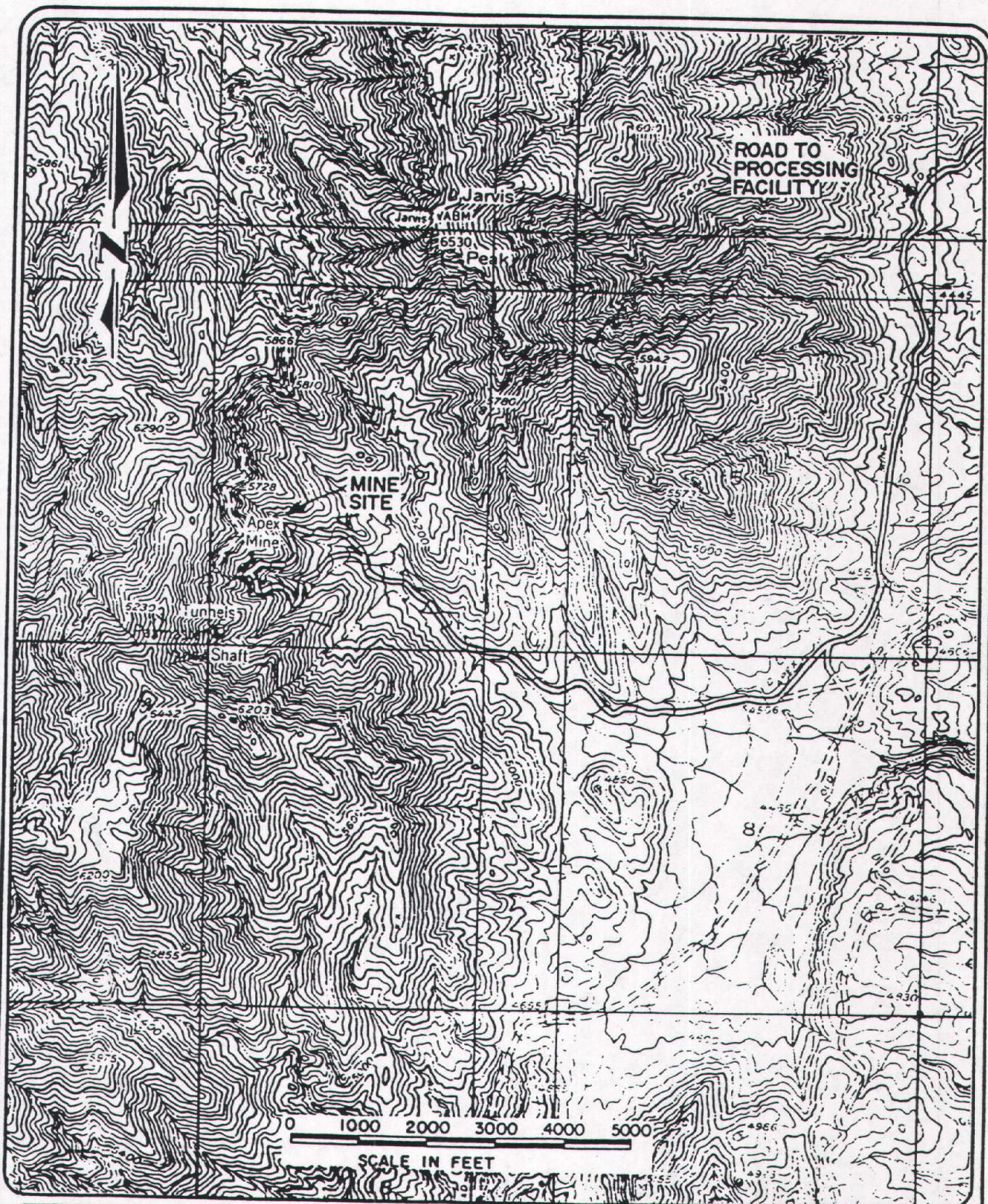
Blasting operations and use of diesel power equipment in the mine will require ventilation to exhaust fumes and dust. Two ventilation periods are involved in the mine; one during the preproduction phase, and the other during production. During preproduction, the Paymaster shaft from the 250-ft adit level will be used as an air intake for the required 14,300 cubic ft per minute (cfm) of air. The air will ventilate down the main vertical Apex shaft and exhaust up the ramp and out to the surface through the 500-ft adit level. During the production period, the required 28,000 cfm of air will follow the same route as in the preproduction phase, except that the air will ventilate northward through the drift at the 625-ft level below, returning up the ramp and out the 500-ft level adit.

Symbol	Formation - Member	Thickness	Lithology
Qa, Qc Qd, Ql	Quaternary	Qa-alluvium Qd-dune sand, Qls-landslide	0-100?
Qoa		older alluvium	0-100?
Qla	Quaternary	high-level alluvium	0-100?
Qla	teritary	basalt flows	100
Jn	Jurassic	Navajo Sandstone	3000-4000
Trk		Kayenta Formation	50-150
Trmos		Springdale Sandstone Member	200-500
Trmod		Dinosaur Canyon Siltstone Member	300-700
Trcp		Petrified Forest Member	300-700
Trcs		Shinarump Cq Member	100
Trmu		upper red member	350
Tras		Shnabkaib Member	800-1000
Tram		middle red member	800-1000
Trmv		Virgin Limestone	Mbr 50
Trml		lower red member	200
Trmt		Timponean Member	100
Pk		Kaibab Limestone	350
Ptw		Hoods Ranch Member	200
Ptbs		Grady Canyon and Seligman Mbs undiv	350
Pq	Permian	Queantoweap Sandstone	1100-1600
Pp		Pakoon Polomite	600-800
Pc	Pennsylvanian	Callville Limestone	900-1600
Mr	Mississippian	Redwall limestone	600-800
Ump		Muddy Peak Limestone	pinnacle member 150
Dms	Devonian		slope member 500
Cn		Nopah Dolomite	1200
Cbk	Cambrian	Bonanza King Formation	1500
Cp		Picche Formation	250
Cpm		Prospect Mountain Quartzite	320
Pc	Precambrian	gneiss, schist, pegmatite	-

surficial deposits
 low-level, but above present flood-pediment deposits plains
 1-2 MY
 eolian cross-bedding
 entire thickness not shown on chart
 stream deposited sand and siltstone
 dark red; dark on aerial photos
 variegated colors; light on photos
 petrified wood
 pelecypods
 ripple marks
 gypsum
 pelecypods
 gypsum
 cherty, fossiliferous
 gypsum
 cherty
 medium to small scale cross beds
 inclined in many directions in lower part
 cyclic
Lithostrotionella (hair coral)
 cherty
 cherty, fossiliferous
 forms white pinnacles
 pebbly dolomite
 laminated white boundstone
 thin-bedded shaly limestone near the base
 green micaceous sh, siltstone, qtz

TABLE B-1

GENERALIZED STRATAGRAPHIC
 COLUMN OF THE STRATA IN THE
 VICINITY OF THE APEX MINE
 (HINTZE et al, 1982)



PROJECT NO.

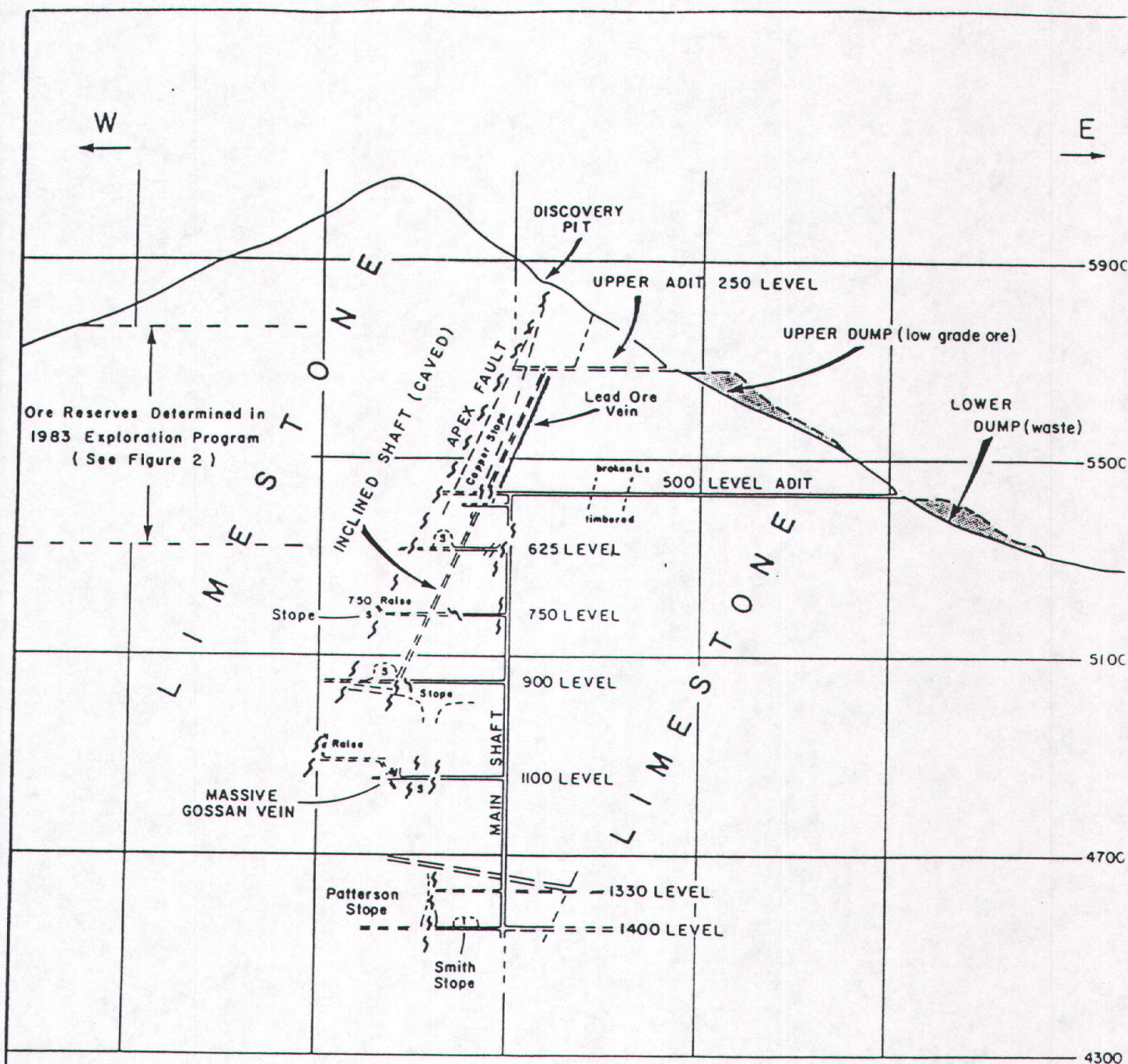
FUNCTION NO.

REVISION NO.

ST GEORGE MINING CORPORATION

FIGURE B-1

MINE LOCATION MAP



ST GEORGE MINING CORPORATION

APEX PROJECT

EAST-WEST SECTION OF MAIN SHAFT

DRAWN
I. K.

DATE
APRIL 1982

FIGURE : B-2

APEX MINE APPLICATION
EXHIBIT C
SOIL AND VEGETATION CHARACTERISTICS

ECOLOGICAL SETTING

The mine is located just below and east of the crest of the Beaver Dam Mountains at 5,500 to 5,700 ft elevation. The slopes are steep at 55 to 70 percent on rocky limestone/dolomite outcrops. The mine is located in a topographic bowl that faces southeast. This is a pinyon/juniper woodland that is common at higher elevations in the deserts and in the Arizona "Strip" vegetation to the southeast and northeast into the Canyonlands of Utah.

The major use of this area has been mining, with some cutting of pinyon pine and juniper for fence post and firewood in the past. The area has not been extensively grazed by cattle due to steep slopes, difficult access, and lack of water. Sheep grazing was probably more common in the past, but has also been greatly reduced in the last 30 years. The area is used as wildlife habitat and forms good cover and forage for deer.

SOILS

The characteristics of site-specific soils were determined in the field from general observations at the mine. Parameters of importance for reclamation, such as soil depth and distribution and depth of suitable topsoiling material, were noted.

The soil at the mine site is classified by the SCS as Rock Land (R0). There is approximately 70 percent rock outcrop at the mine site, and the remaining 30 percent soils are shallow and accumulated in ledges, steep drainages, and depressions. No soil descriptions were made at the mine site since soil development and profiles are not present as a typical pedon.

The soil material is variable and does not form sufficient material to be considered topsoiling material. The soils present cannot be stripped in sufficient quantities to be stockpiled and then respread for revegetation. Disturbed surface areas from previous underground mining will be used for surface facilities and operations, and minimum new disturbance is planned.

VEGETATION

Vegetation was typed in the field by dominant plant species and topographic position. These types were then mapped and described. Due to the steepness of the terrain and the variability of vegetation at the mine site, only visual estimates of cover were made.

Vegetation on the steep slopes at the mine is a scattered pinyon/juniper woodland with low density. Secondary cover is provided by big sagebrush, mountain mahogany, and service berry. There are a large number of other plant species growing scattered throughout the rocks, ledges, and drainages. Table C-3 lists the plant species recorded or collected.

Plant cover was visually estimated at 30 to 35 percent, ranging from zero on rock outcrops to 50 percent on protected level ledges and in drainages. Several species of plants are adapted to growing in the rock outcrops; these include rock-spirea, agave, cliff-rose, and snowberry. In the valley below the mine, cover was approximately 60 percent with species such as manzanita, tassel bush, and scrub oak common.

TABLE C-1 SPECIES LIST, APEX PROJECT, WASHINGTON COUNTY, UTAH

Scientific Name	Common Name
PLANTS	
<u>Trees</u>	
Juniperus utahensis	Utah juniper
Pinus monophylla	single-leaf pinyon
<u>Shrubs</u>	
Agave utahensis	Agave
Amelanchier utahensis	service berry
Arctostaphylos pungens	Manzanita
Artemisia tridentata	big sagebrush
Cercocarpus intricatus	little-leaf mahogany
Coleogyne ramosissima	blackbrush
Cowania stansburiana	cliff-rose
Ephedra viridis	mountain joint fir
Eriodictyon angustifolium	yerba santa
Fraxinus anomala	single-leaf ash
Garrya flavescens	silk tassel bush
Prunus fasciculatus	wild almond
Quercus turbinella	scrub oak
Rhus trilobata	squaw bush
Symphoricarpos longiflorus	snowberry
Yucca baccata	yucca
<u>Cacti</u>	
Echinocereus Engelmannii	hedgehog cactus
Mammillaria arizonica*	fishhook cactus
Opuntia erinacea	prickly-pear

TABLE C-1 SPECIES LIST, APEX PROJECT, WASHINGTON COUNTY, UTAH

<u>Scientific Name</u>	<u>Common Name</u>
<u>Herbaceous Perennials</u>	
Beckwithia Andersonii	buttercup
Dichelostemma pulchella	wild hyacinth
Leptodactylon pungens*	prickly phlox
Penstemon Palmeri	scented penstemon
Petrophyton caespitosum	rock-spirea
Phlox Stansburyi	phlox
Sphaeralcea ambigua	desert mallow
<u>Annuals</u>	
Descurania pinnata	tansy mustard
Draba cuniaefolia	draba
Montia spathulata	miners lettuce
Phacelia fremontia	phacelia
WILDLIFE	
<u>Mammals</u>	
Odocoileus hemionus	deer
Canis latrans	Coyote
Taxidea taxus	badger
Lepus californicus	black-tailed jackrabbit
Sylvilagus audubonii	cottontail
Neotoma lepida	packrat
Eutamias dorsalis*	chipmunk
Peromyscus maniculatus	deermouse
Onychomys leucogaster*	grasshopper mouse

TABLE C-1 SPECIES LIST, APEX PROJECT, WASHINGTON COUNTY, UTAH

Scientific Name	Common Name
<u>Birds</u>	
Aquila chrysaetos	golden eagle
Cathartes atratus	vulture
Corvus corax	raven
Falco sparverius	sparrow hawk
Zenaidura macroura	mourning dove

Page 3 of 3

* Identification tentative

APEX MINE APPLICATION
EXHIBIT D
REHABILITATION AND RECLAMATION PLAN

For the Apex mine reopening, there are two phases of activities involving first the rehabilitation of the older mine and later the reclamation of the area once the present mining operations cease.

REHABILITATION OF PREVIOUS MINING

A surface cleanup program was initiated in 1983 and will continue into 1984. Surface wastes from 80 years of mining is being collected and disposed of in an approved dump near St. George. This program will remove much of the unsightly trash, debris, and waste left from previous mining activity.

There are no abandoned facilities on the Apex property itself. The nearby Paymaster shaft will be used as a ventilation intake (see Exhibit B); both it and its accompanying surface facilities will be secured from public trespass with fences. The portal on the 250-ft level will be secured with timber. The small existing surface crater on the hillside above the portal has already been securely fenced. All barriers will be posted with warning signs and will be regularly inspected and maintained. The portal on the 500-ft level will be used as the main access to the mine for the life of the project.

RECLAMATION PLAN

Decommissioning and reclamation will commence once the mining operations are terminated and the project closed.

Decommissioning will involve removal of salvageable equipment and buildings, and a cleanup of any debris from mining activities. The foundations will be broken up and disposed of in the waste dump. All portals will be sealed and secured in accordance with applicable requirements.

Reclamation will involve grading the site to blend with the natural topography and scarifying flat surfaces and all roads, including exploratory roads, that have been compacted by mining operations or traffic. The operator is not planning to replace topsoil or revegetate for several reasons. There is insufficient topsoil material at the mine area for effective topsoil depths; and the steepness of the terrain, at 40 to 70 percent, would prevent the placement and stabilization of topsoil if it were present. Revegetation is also not practical due to steep slopes, lack of suitable seedbed material, and the general arid climate.

The operator is proposing to leave the previous upper dump area of 3 acres as exposed rock ledges and steep slopes. The surface facilities area, including building sites, work areas, stockpile pad, and waste dump will occupy another 3.7 acres that will be graded and scarified, but not revegetated. The total site to be left after operations cease is less than 7 acres and occupies areas disturbed by previous mining activities. There is no vegetation growing on this area now. The loss of this small area will not have a significant long-term impact on the land use in this region as wildlife habitat.

Revegetation using conventional techniques would be difficult in this location and not assured of success. Some natural revegetation can be expected to occur over a period of time by plant species already present in the area that are adapted to rock outcrop conditions and meager soils. The operator will conduct a program during the operations period to determine what plant species are colonizing disturbed areas, and modify the grading and scarification to promote this colonization.

Estimated Costs - Apex Mine Project

Estimated costs are based on decommission, reclamation, and final site closure for 3.7-acre mine surface facilities (1984 dollars).

1) Sealing of Shafts and Portals

The main portal and ventilation shaft opening will require sealing.

Labor - 1 foreman	\$ 20.70/hr
2 laborers	29.50/hr ⁴⁰
1 carpenter	18.50/hr
1 light truck	14.10/hr
	<u>\$ 82.80/hr</u>

Time = 16 hrs @ ~~\$82.80/hr~~
83.20

1231
\$ 1,325

Material - Lumber	\$ 750
Concrete, 6 yds @ \$55	330
Steel	<u>250</u>

1,330

2) Site Cleanup Labor and Equipment

1 foreman	\$ 20.70/hr
2 laborers	29.90/hr
1 pickup	14.10/hr
1 haul truck and operator	57.65/hr
	<u>\$122.35/hr</u>

24 hrs @ \$122.35/hr

2,936

3) Removal of Structures - Labor and Equipment

1 foreman	\$ 20.70/hr
4 laborers	59.80/hr
1 pickup	14.10/hr
1 flat-bed truck and operator	36.80/hr
1 forklift and operator	<u>27.70/hr</u>
	\$159.10/hr

32 hrs @ \$159.10/hr

5,091

4) Concrete and Foundation Removal Labor and Equipment

1 foreman	\$ 20.70/hr
1 Cat and operator	150.90/hr
1 haul truck and operator	57.65/hr
1 loader and operator	<u>70.45/hr</u>
	\$ 299.70/hr

6 hrs @ \$299.70/hr

1,798

5) Grading and Scarification Labor and Equipment

1 Cat and operator (D-7)	\$ 150.90/hr
1 grader and operator	<u>169.50/hr</u>
	\$ 320.30/hr

12 hrs @ \$320.30/hr

3,844

6) Final Site Preparation and Stabilization

1 foreman	\$ 20.70/hr
2 laborers	29.90/hr
1 truck and driver	<u>14.05/hr</u>
	\$ 64.65/hr

24 hrs @ \$64.65/hr

1,552

7) Mobilization590

TOTAL	\$ 18,664
CONTINGENCY 10%	1,866

TOTAL	\$ 20,510
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APEX MINE APPLICATION
EXHIBIT E
SURFACE HYDROLOGY REPORT

The Apex Mine surface facilities are at the base of a small catchment basin that is part of the West Mountain Valley Wash. This catchment drains into the Virgin River 8 miles below St. George. The length of this drainage from the mine site to the river is approximately 9 miles. The drainages in the lower washes in this area are intermittent as is characteristic for a warm, arid region. Drainages above the mine area are ephemeral and only flow during periods of heavy precipitation. The average precipitation is light but with fairly high precipitation intensities and runoff. Annual average precipitation is estimated at 12 inches based on regional data and the topography and location of the site.

The gaging station nearest the mine site is on the Virgin River approximately one mile below the confluence of West Mountain Valley Wash. The mean annual runoff for the region is approximately 1 inch.

The catchment area directly above the mine facilities at 5,430 ft elevation is small with 13.3 acres in a steep, 61 percent slope basin just below the crest of the Drum Mountains at 6,070 ft. Drainage across this basin is diffuse without a major definite channel (see Figure E-1). Vegetation is estimated at 35 percent cover, with rock outcrop and a mine waste dump estimated at 70 percent of the area (see Figure B-3). Previous mining activities (which includes two mine waste dumps, two adits, trenching and exploration activities, and surface buildings) have disturbed 6 of the 13 acres.

The calculated peak runoff discharge from the catchment basin using the rational method results in a conservative value of 30 cfs. This figure is based on a "Type C" hydrological soil group and an SCS curve number (CN) equal to 65. The 25-year return period precipitation event was estimated at 1.80 inches for 1 hour, and 2.90 inches for 24 hours. These estimates are based on

the NOAA Atlas for precipitation-frequency for Utah. A coefficient of runoff of 0.40 was used to represent the basin's potential runoff capacity.

Diversion ditches are planned to protect the mine surface facilities from stormwater runoff as shown in Figure E-1. For the diversion, the basin is divided into three relatively equal subbasins. The size and gradient of these ditches were developed from Manning's equations for trapezoidal channels with varying bottom widths and a flow of 30 cfs. Using the maximum cfs and a freeboard of 1.0 ft, the ditches were calculated for a 2.5-ft depth and a 2-ft bottom width with 2:1 side slopes and a gradient of 0.5 percent.

Three ditches are planned around the upper side of the mine portal, surface facilities, and access road (see Figure E-1). The upper Ditch #1, with a catchment area of approximately 9 acres, will start at the right base of the upper mine dump and parallel the existing road to the north and outlet on the crest of the ridge to the north. Ditch #2, with a catchment area of approximately 8 acres, is a short 300-ft-long ditch to protect the south side of the working and ore storage areas. Ditch #3 will parallel the existing road to the mine that will be upgraded as a main access. Both ditches 2 and 3 will outlet into separate natural drainages to the south and east of the mine facilities. During actual construction of the diversion ditches, adjustments will be made for site characteristics, and energy dissipation structures will be constructed at outlets to prevent erosion. Riprap channel protection will be used where velocities exceed the resistance of natural channel materials.



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Dianne R. Nielson, Ph.D., Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

August 24, 1984

Mr. H. Lutz Klingman
President and Manager
St. George Mining Corporation
50 East 100 South
St. George, Utah 84770

Dear Mr. Klingman:

RE: Final Permit Approval, St. George Mining Corporation, Apex
Mine, ACT/053/004, Washington County, Utah

The Division has reviewed the August 16, 1984 submittal from Steffen, Robertson and Kirsten in response to the Division's letter of June 22, 1984 and has found all remaining review items to have been satisfactorily addressed. In addition, the Division has received the reclamation surety bond in the amount of \$54,389.00 for the Apex Mine project.

On August 23, 1984, an Executive Summary of the Apex project was presented to the Board of Oil, Gas and Mining, wherein the Board affirmed the bond amount and the Division's issuance of final approval for this mining and reclamation plan.

Therefore, the Division hereby issues final approval of the Apex Mine Mining and Reclamation Plan. We sincerely appreciate the cooperative spirit exhibited by your company and its representatives throughout the review process and look forward to continuing this relationship in the future. The Division extends its best wishes for a successful mining operation.

Page Two
Mr. H. Lutz Klingman
ACT/053/004
August 24, 1984

Should you have any questions, please contact the Division
at your earliest convenience.

Best regards,

A handwritten signature in dark ink, appearing to read "Dianne R. Nielson". The signature is fluid and cursive, with a large initial "D" and a long, sweeping underline.

Dianne R. Nielson
Director

MMB/btb
cc: Ron Daniels
Jim Smith
Mary Boucek
Steve Cox
88130-48 & 49



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Dianne R. Nielson, Ph.D., Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

July 31, 1984

TO: Board of Oil, Gas and Mining
FROM: Mary M. Boucek, Permit Supervisor/Reclamation Biologist *MMB*
RE: Final Approval, St. George Mining Corporation, Apex Mine,
ACT/053/004, Washington County, Utah

The Division of Oil, Gas and Mining (DOGM) technical staff has completed its review of the Mining and Reclamation Plan (MRP) submitted by St. George Mining Corporation for the Apex Mine Project and has determined that the MRP satisfies the requirements of the Utah Mined Land Reclamation Act of 1975.

The required 30-day public comment period has expired with no negative comments being received. A surety bond in the amount of \$54,389.00 (1985 dollars) has been posted by the operator.

The staff requests that the Board concur with approval of this surety bond and the issuance of Final Permit Approval. An Executive Summary and surety estimate are attached for your review and information.

MMB/btb
Attachments
cc: Jim Smith, DOGM
Steve Cox, DOGM
97210

EXECUTIVE SUMMARY

Mine Name: <u>Apex Mine</u>	I.D. No. <u>ACT/053/004</u>
Operator: <u>St. George Mining Corporation</u>	County: <u>Washington</u>
<u>50 East 100 South</u>	New/Existing: <u>New</u>
<u>St. George, Utah 84770</u>	Mineral Ownership: <u>Private</u>
Telephone: <u>(801) 628-3239</u>	Surface Ownership: <u>Private</u>
Contact Person: <u>H. Lutz Klingman</u>	Lease No.(s): <u>N/A</u>
Life of Mine: <u>13 years</u>	Permit Term: <u>1 yr (concurrently w/bond)</u>
Legal Description: <u>Secs. 6 & 7, T. 43 S., R. 17 W; Secs. 1 & 12, T. 43 S., R. 18 W</u>	
Mineral(s) to be Mined: <u>Gallium, Germanium, Copper, Zinc, Silver</u>	
Mining Methods: <u>Mechanized Cut and Pneumatic Fill</u>	
Acres to be Disturbed: <u>8.1</u>	
Present Land Use: <u>Wildlife Habitat/Mining</u>	
Postmining Land Use: <u>Wildlife Habitat</u>	
Variances from Reclamation Standards (Rule M-10) Granted: <u>M-10(14)</u>	

Soils and Geology:

Soil Description: Classified by the Soil Conservation Service as rock land (RO). No soil descriptions were made at the minesite since soil development and profiles are not present as a typical pedon.

pH: NA

Special Handling Problems: Site consists of 70% rock outcrop and 30% soils which are too shallow to strip.

Geology Description: The ore is located in the Callville limestone formation as a hydrothermally-deposited limonite/goethite mineral deposit along the Apex Fault.

Hydrology:

Ground Water Description: No aquifers have been identified; no ground water is expected to be encountered.

Surface Water Description: No intermittent or permanent streams exist on-site; ephemeral drainage will be routed around distured area.

Water Monitoring Plan: None.

Ecology:

Vegetation Type(s); Dominant Species: Pinyon/Juniper Woodland.

Percent Surrounding Vegetative Cover: 30-35%.

Wildlife Concerns: None.

Surface Facilities: Change house & field office, workshop, water storage tank, compressor, fuel storage area, transformer & substation, crusher & screen, ore stockpiles

Mining and Reclamation Plan Summary: See attachment.

Surety:

Amount: \$54,389.00

Form: Cash Bond

Renewable Term: One year.

During Operations:

1. St. George Mining Corporation will reactivate the old Apex Mine in order to produce gallium, germanium, copper, zinc and silver. The old mine is being rehabilitated and a surface cleanup program has been initiated.
2. The present underground mining method is a mechanized cut and pneumatic fill. Duration of mining operations at the Apex Project site is estimated to be 13 years.
3. Ore will be transported to the surface, screened, crushed and hauled off-site for a distance of 7.5 miles to the processing facility which is on the Shivwits Indian Reservation.
4. Working stockpiles of ore, low grade ore and mine wastes will be maintained on-site. Waste rock generated during underground mining will be crushed, screened and used as pneumatic fill for ground support in the mine. In addition to ore produced during mining, the existing upper mine dump containing low grade ore will be reclaimed.

After Operations:

1. All salvageable equipment and buildings will be removed, portals will be sealed and secured and foundations will be broken up and disposed of in the waste dump. Powerlines directly supplying the mine will be removed.
2. The site will be graded to blend with the natural topography and all flat surfaces will be scarified. The existing upper dump area will be graded down to the original limestone outcrop surface.
3. Disturbed areas, including roads, will be mulched, fertilized and revegetated. Currently proposed revegetation methods will be tested on the upper dump area during years 3 and 4 of operations and monitored for three years to determine success and modify the final reclamation procedures, if indicated.

BOND ESTIMATE

St. George Mining Corporation
Apex Mine
ACT/053/004, Washington County, Utah

July 31, 1984

1. Sealing of Shafts and Portals

Labor - 1 foreman	\$ 29.20
2 laborers	\$ 43.90
1 carpenter	\$ 27.70
	<u>\$100.80/hr =</u>
	\$ 95.66/hr
1 light truck	\$ 14.10
	<u>\$109.76</u>

Time = 16 hrs @ \$109.76 X .994 (index) = \$1,745.62

Material (8.3 times original estimate)

Lumber	\$ 6,225.00
Steel	\$ 2,075.00
Concrete, 50 yds @ \$55	\$ 2,750.00
	<u>\$11,050.00</u>

\$12,795.62

2. Site Cleanup, Labor and Equipment

1 foreman	\$ 29.20/hr
2 laborers	\$ 43.90/hr
	<u>\$ 73.10/hr</u>
1 pickup	\$ 14.10/hr
1 haul truck & operator	\$ 57.65/hr
	<u>\$144.85/hr</u>

Time = 24 hrs @ \$144.85/hr X .994 (index) = \$3,455.54

3. Removal of Structures, Labor and Equipment

1 foreman	\$ 29.20/hr
4 laborers	\$ 87.80/hr
	<u>\$117.00/hr</u>
1 pickup	\$ 14.10
1 flat-bed truck & operator	\$ 41.75
1 forklift & operator	\$ 37.35
	<u>\$210.20</u>

Time = 32 hrs @ \$210.20/hr X .994 (index) = \$6,686.00

4. Concrete and Foundation Removal, Labor and Equipment

1 foreman	\$ 29.20/hr
1 cat & operator	\$150.90/hr
1 haul truck & operator	\$ 57.65/hr
1 loader & operator	\$ 70.45/hr
	<u>\$308.20/hr</u>

Time = 6 hrs @ \$308.20/hr = \$1,849.20 X .994 (index) =
\$1,838.10

5. Grading and Scarification, Labor and Equipment

1 cat & operator	\$150.90/hr
1 grader & operator	\$169.50/hr
	<u>\$320.30/hr</u>

Time = 12 hrs @ \$320.30 = \$3,843.60 X .994 (index) =
\$3,820.54

6. Final Site Preparation and Stabilization

1 foreman	\$ 29.20
2 laborers	\$ 43.80
1 truck & driver	\$ 30.01
	<u>\$103.01</u>

Time = 24 hrs @ \$103.01 = \$2,472.24 X .994 (index) =
\$2,457.41

7. Mobilization \$590.00

8. Revegetation

Mulch - 2T/ac @ \$100/T	\$ 200.00/ac
Fertilizer - 150#/ac X \$7/50#	\$ 21.00/ac
Seed Mix - \$1,029.20/ac	\$1,029.20/ac
	<u>\$1,250.20/ac</u>

8.1 ac @ \$1,250.20/ac = \$10,126.62

7.7 acres original submittal
.362 additional acreage
8.062

Matting \$250.00

Labor

1 farm tractor & operator - 24 hrs @ \$32.30/hr	\$ 775.00
Laborer - 160 hrs @ \$21.95/hr	\$3,512.00

SUMMARY

1. Sealing of Shafts and Portals	\$12,795.62
2. Site Cleanup	\$ 3,455.54
3. Removal of Structures	\$ 6,686.00
4. Concrete and Foundation Removal	\$ 1,838.10
5. Grading and Scarification	\$ 3,820.54
6. Final Site Preparation & Stabilization	\$ 2,457.41
7. Mobilization	\$ 590.00
8. Revegetation	<u>\$14,663.62</u>
10% Contingency	<u>\$46,305.83</u>
	<u>\$ 4,630.58</u>
	<u>\$50,936.41</u> (1984 dollars)
TOTAL	\$50,936.00

93660



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangerter

Governor

Dee C. Hansen

Executive Director

Dianne R. Nielson, Ph.D.

Division Director

355 West North Temple

3 Triad Center, Suite 350

Salt Lake City, Utah 84180-1203

801-538-5340

DOGM
MINERALS PROGRAM
FILE COPY

December 7, 1989

Mr. Thomas Graham
Mine Superintendent
Hecla Mining Company
P.O. Box 2407
St. George, Utah 84771

Dear Mr. Graham:

Re: Final Approval of Limestone Quarry Permit Amendment & Completion of Permit Transfer Process, Apex Mine, M/053/004, Washington County, Utah

On November 30, 1989, the Board of Oil, Gas and Mining formally approved the Reclamation Contract, the amount and form of surety, and the permit transfer form, which were provided by Hecla Mining Company (Hecla) as a condition to final approval of the Apex Mine permit amendment and permit transfer. Hecla has now completed all of the permitting requirements to finalize the permit transfer process from St. George Mining Company.

I have enclosed a copy of the signed and notarized Reclamation Contract and permit transfer form for your records. Thank you for your cooperation in completing this permitting action. Please contact me should you have any questions or concerns regarding this Board action.

Sincerely,

D. Wayne Hedberg
Permit Supervisor/
Reclamation Hydrologist

DWH/jb
Enclosure
cc: Lowell Braxton
MN3/48

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
(801) 538-5340

RECLAMATION CONTRACT

---oo0oo---

For the purpose of this RECLAMATION CONTRACT the terms below are defined as follows:

"NOTICE OF INTENTION" (NOI): (File No.) M/053/004
(Mineral Mined) germanium / gallium / copper

"MINE LOCATION":

(Name of Mine) Apex Mine
(Description) Underground mine located in sections 6,7,
1 and 2, R17 and 18 W, T 43 S
Washington County, Utah

"DISTURBED AREA":

(Disturbed Acres) 12.7 acres
(Legal Description) Exhibit A

"OPERATOR":

(Company or Name) Hecla Mining Company
(Address) P. O. Box 2407
St. George, UT 84771
(Phone No.) (801) 628-1635

*Replaced
2-26-97
original returned
to operator 3-3-97
Replaced 1-26-9*

"OPERATOR'S REGISTERED AGENT":

(Name)

(Address)

(Phone No.)

Anh Mai, Apex Unit Manager

Hecla Mining Company

P. O. Box 2407

St. George, UT 84771

(801) 628-1635

"OPERATOR'S OFFICER(S)":

Arthur Brown, President and CEO

Ralph R. Noyes, Vice President-Metal Mining

Robert H. Wallace, Vice President-Treasurer

"SURETY":

(Form of Surety - Exhibit B)

MR Form 5

"SURETY COMPANY":

(Name, Policy or Acct. No.)

Aetna Casualty and Surety Company
Bond No. 81S100565425BCA

"SURETY AMOUNT":

(Escalated Dollars)

\$44,000

"ESCALATION YEAR"

1994

"STATE":

State of Utah

"DIVISION":

Division of Oil, Gas and Mining

"BOARD":

Board of Oil, Gas and Mining

EXHIBITS:

A "DISTURBED AREA":

B "SURETY":

Revision Dates:

This Reclamation Contract (hereinafter referred to as "Contract") is entered into between Operator and the Board.

WHEREAS, Operator desires to conduct mining operations under Notice of Intention (NOI) File No. M/053/004 which has been approved by the Division under the Utah Mined Land Reclamation Act, Sections 40-8-1 et seq., Utah Code Annotated, (1953, as amended) (hereinafter referred to as "Act") and implementing rules; and

WHEREAS, Operator is obligated to reclaim the Disturbed Area in accordance with Operator's approved Reclamation Plan and Operator is obligated to provide surety in form and amount approved by the Board, to assure reclamation of the Disturbed Area.

NOW, THEREFORE, the Board and the Operator agree as follows:


1. Operator agrees to conduct reclamation of the Disturbed Area in accordance with the Act and implementing regulations, the Notice of Intention, and the Reclamation Plan.
2. Concurrent with the execution hereof, Operator has provided surety to assure that reclamation is conducted, in form and amount acceptable to the Board, which surety is in the form of the surety attached hereto as Exhibit B and made a part hereof. The surety shall remain in full force and effect according to its terms unless modified by the Board in writing.
3. Operator agrees to pay public liability and property damage claims resulting from mining as determined by the Board or the Division, to the extent provided in the Act.

4. Operator agrees to perform all duties and fulfill all reclamation requirements applicable to the mine as required by the Act and implementing rules, the Notice of Intention, and the Reclamation Plan.
5. The Operators liability under this Contract shall continue in full force and effect until the Division certifies that the Operator has reclaimed the Disturbed Area in accordance with the Act and implementing rules, the Notice of Intention and the Reclamation Plan.
6. Operator agrees to indemnify and hold harmless the State, Board and Division from any claim, demand, liability, cost charge, suit, or obligation of whatsoever nature arising from the failure of Operator or Operator's agents, and employees, or contractor to comply with this Contract.
7. Operator may, at any time, submit a request to the Board to substitute surety. The Board, in its sole judgment and discretion, may approve such substitution if the substitute surety meets the requirements of the Act and the implementing rules.
8. This Contract shall be governed and construed in accordance with the laws of the State.
9. If Operator shall default in the performance of the obligations heretofore, Operator agrees to pay all costs and expenses, including attorneys fees and costs generated by the Division and/or the Board in the enforcement of this Contract.

10. Any breach of the provisions of this Contract by Operator may, at the discretion of the Division, result in an order to cease mining operations. After opportunity for notice and hearing, the Division, or Board, as appropriate, may revoke the Notice of Intention, order reclamation, or order forfeiture of the Surety, or take such other action as is authorized by law.
11. In the event of forfeiture of the Surety, Operator shall be liable for any additional costs in excess of the surety amount which are required to comply with this contract. Any excess monies resulting from forfeiture of the Surety, upon completion of reclamation and compliance with this Contract, shall be returned to the rightful claimant.
12. This Contract represents the entire agreement of the parties involved, and any modification must be approved in writing by the parties involved.
13. Each signatory below represents that he/she is authorized to execute this Contract on behalf of the named party.

SO AGREED this 30th day of November, 1989.

APPROVED AS TO FORM AND AMOUNT OF SURETY:

By 
Chairman, Board of Oil, Gas and Mining

DIVISION OF OIL, GAS AND MINING:

By

Director

Dianne T. Nielson

Date

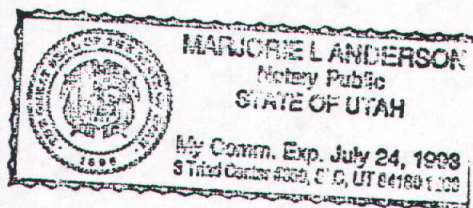
11-30-89

STATE OF Utah)

) ss:

COUNTY OF Salt Lake)

On the 30th day of November, 19 89, personally appeared before me, who being by me duly sworn did say that he/she, the said Dianne E. Nielson is the Director of the Division of Oil, Gas and Mining, Department of Natural Resources, State of Utah, and he/she duly acknowledged to me that he/she executed the foregoing document by authority of law on behalf of the State of Utah.



Marjorie L. Anderson

Notary Public

Residing at: SLC, Utah

My Commission Expires:

OPERATOR:

By

Ralph R. Noyes, V.P.
Corporate Officer - Position

November 8, 1989

Date

STATE OF Idaho)

COUNTY OF Kootenai)

ss.

On the 8th day of November, 1989, personally appeared before me Ralph R. Noyes who being by me duly sworn did say that he/she, the said Ralph R. Noyes is the Vice President-Metal Mining of Hecla Mining Company and duly acknowledged that said instrument was signed on behalf of said company by authority of its bylaws or a resolution of its board of directors and said Ralph R. Noyes duly acknowledged to me that said company executed the same.

Anna Marie Henry

Notary Public

Residing at: Coeur d'Alene, Idaho

My Commission Expires: June 20, 1991

INSTITUTION:

AETNA CASUALTY & SURETY COMPANY

Surety (Company)

Carla Holt

Company Officer - Position

CARLA HOLT - ATTORNEY IN FACT

11/3/89

Date

STATE OF WASHINGTON

COUNTY OF SPOKANE

) ss:
)

On the 3rd day of NOVEMBER, 1989, personally appeared before me CARLA HOLT who being by me duly sworn did say that ~~he~~/she, the said CARLA HOLT is the ATTORNEY IN FACT of AETNA CASUALTY & SURETY COMPANY and duly acknowledged that said instrument was signed on behalf of said company by authority of its bylaws or a resolution of its board of directors and said CARLA HOLT duly acknowledged to me that said company executed the same.

Linda Pope

Notary Public LINDA POPE

Residing at: SPOKANE, WASHINGTON

My Commission Expires: 7/5/90

NOTE: An Affidavit of Qualification must be completed and attached to this form for each authorized agent or officer. Where one signs by virtue of Power of Attorney for a company, such Power of Attorney must be filed with this Contract.

MR FORM 5

(December 1988)
(Noncoal)Bond Number 81S100565425BCA
Permit Number M/053/004
Mine Name APEX UNITSTATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
(801) 538-5340

THE MINED LAND RECLAMATION ACT

BOND

The undersigned HECLA MINING COMPANY
as principal, and AETNA CASUALTY & SURETY COMPANY
as surety, hereby jointly and severally bind ourselves, our heirs,
administrators, executors, successors and assigns unto the State of Utah,
Division of Oil, Gas and Mining in the penal sum of FIFTY-FOUR THOUSAND THREE HUN-
DRED TWENTY-NINE & NO/100 dollars (\$ 54,329.00).

The principal estimated in the Mining and Reclamation Plan filed with the
Division of Oil, Gas and Mining on the 14th day of June, 1989,
that 12½ acres of land will be disturbed by this mining operation
in the State of Utah. A description of the disturbed land is attached hereto
as Exhibit "A".

When the Division has determined that the principal has satisfactorily
reclaimed the above-mentioned lands affected by mining in accordance with the
approved Mining and Reclamation Plan and has faithfully performed all
requirements of the Mined Land Reclamation Act, and complied with the Rules
and Regulations adopted in accordance therewith, then this obligation shall be
void; otherwise it shall remain in full force and effect until the reclamation
is completed as outlined in the approved Mining and Reclamation Plan.

If the approved plan provides for reclamation of the land affected on a
piecemeal or cyclic basis, and the land is reclaimed in accordance with such
plan, then this bond may be reduced periodically.

In the converse, if the plan provides for a gradual increase in the area
of the land affected or increased reclamation work, then this bond may
accordingly be increased with the written approval of the surety company.

This bond is noncancellable by the surety at any time for any reason
including, but not limited to nonpayment of premium or bankruptcy of the
permittee during the period of liability.

Page 2
NONCOAL
MR-5

NOTE: Where one signs by virtue of Power of Attorney for a surety company, such Power of Attorney must be filed with this bond. If the principal is a corporation, the bond shall be executed by its duly authorized officer.

Dated this 3rd day of NOVEMBER, 19 89.

State of Utah
Board of Oil, Gas and Mining

Gregory P. Williams, Chairman

HECLA MINING COMPANY
Principal (Company)

By David F. Wolfe
Company Officer - Position
ASSISTANT TREASURER

Date: NOVEMBER 8, 1989

AETNA CASUALTY & SURETY COMPANY
Surety (Company)

By Carla Holt
Surety Company Officer - Position
CARLA HOLT - ATTORNEY IN FACT

Date: NOV. 3, 1989

APPROVED AS TO FORM:

By Barbara W. Roberts
Assistant Attorney General

Page 3
NONCOAL
MR-5

AFFIDAVIT OF QUALIFICATION

CARLA HOLT, being first duly sworn, on oath deposes and says that ~~XX~~/she is the (officer or agent) ATTORNEY IN FACT of said Surety Company, and that he/she is duly authorized to execute and deliver the foregoing obligations; that said Surety Company is authorized to execute the same and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations.

Signed Carla Holt
Surety Company Officer - Position
CARLA HOLT - ATTORNEY IN FACT

Subscribed and sworn to before me this 3rd day of NOVEMBER, 1989.

Linda Pope
Notary Public
LINDA POPE

My Commission Expires:

7-5, 1990.

MN9/61-63

POWER OF ATTORNEY AND CERTIFICATE OF AUTHORITY OF ATTORNEY(S)-IN-FACT

KNOW ALL MEN BY THESE PRESENTS, THAT THE AETNA CASUALTY AND SURETY COMPANY, a corporation duly organized under the laws of the State of Connecticut, and having its principal office in the City of Hartford, County of Hartford, State of Connecticut, hath made, constituted and appointed, and does by these presents make, constitute and appoint **Charles H. Steilen, James E. McFigue, Roy N. Arnold, George C. Schroeder, Lionel C. Greenwood, Linda Tichey or Carla Holt** - -

of **Spokane, Washington**, its true and lawful Attorney(s)-in-Fact, with full power and authority hereby conferred to sign, execute and acknowledge, at any place within the United States, or, if the following line be filled in, within the area there designated, the following instrument(s):
by his/her sole signature and act, any and all bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any and all consents incident thereto

and to bind THE AETNA CASUALTY AND SURETY COMPANY, thereby as fully and to the same extent as if the same were signed by the duly authorized officers of THE AETNA CASUALTY AND SURETY COMPANY, and all the acts of said Attorney(s)-in-Fact, pursuant to the authority herein given, are hereby ratified and confirmed.

This appointment is made under and by authority of the following Standing Resolutions of said Company which Resolutions are now in full force and effect:

VOTED: That each of the following officers: Chairman, Vice Chairman, President, Any Executive Vice President, Any Senior Vice President, Any Vice President, Any Assistant Vice President, Any Secretary, Any Assistant Secretary, may from time to time appoint Resident Vice Presidents, Resident Assistant Secretaries, Attorneys-in-Fact, and Agents to act for and on behalf of the Company and may give any such appointee such authority as his certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors may at any time remove any such appointee and revoke the power and authority given him.

VOTED: That any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the Chairman, the Vice Chairman, the President, an Executive Vice President, a Senior Vice President, a Vice President, an Assistant Vice President or by a Resident Vice President, pursuant to the power prescribed in the certificate of authority of such Resident Vice President, and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary or by a Resident Assistant Secretary, pursuant to the power prescribed in the certificate of authority of such Resident Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact pursuant to the power prescribed in his or their certificate or certificates of authority.

This Power of Attorney and Certificate of Authority is signed and sealed by facsimile under and by authority of the following Standing Resolution voted by the Board of Directors of THE AETNA CASUALTY AND SURETY COMPANY which Resolution is now in full force and effect:

VOTED: That the signature of each of the following officers: Chairman, Vice Chairman, President, Any Executive Vice President, Any Senior Vice President, Any Vice President, Any Assistant Vice President, Any Secretary, Any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached.

IN WITNESS WHEREOF, THE AETNA CASUALTY AND SURETY COMPANY has caused this instrument to be signed by its Assistant Vice President, **Joseph P. Kiernan**, and its corporate seal to be hereto affixed this **28th** day of **June**, 19 **89**

State of Connecticut }
County of Hartford } ss. Hartford



THE AETNA CASUALTY AND SURETY COMPANY

By *Joseph P. Kiernan*
Joseph P. Kiernan
Vice President

On this **28th** day of **June**, 19 **89**, before me personally came **JOSEPH P. KIERNAN**, to me known, who, being by me duly sworn, did depose and say: that he/she is **Vice President** of THE AETNA CASUALTY AND SURETY COMPANY, the corporation described in and which executed the above instrument; that he/she knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; and that he/she executed the said instrument on behalf of the corporation by authority of his/her office under the Standing Resolutions thereof.



George A. Perry, Jr.
My commission expires March 31, 19 **91**
George A. Perry, Jr.
Notary Public

CERTIFICATE

I, the undersigned, **Secretary** of THE AETNA CASUALTY AND SURETY COMPANY, a stock corporation of the State of Connecticut, DO HEREBY CERTIFY that the foregoing and attached Power of Attorney and Certificate of Authority remains in full force and has not been revoked; and furthermore, that the Standing Resolutions of the Board of Directors, as set forth in the Certificate of Authority, are now in force.

Signed and Sealed at the Home Office of the Company, in the City of Hartford, State of Connecticut. Dated this **3rd** day of **November**, 19 **89**



By *John W. Welch*
John W. Welch, Secretary



DECREASE CERTIFICATE

THE AETNA CASUALTY AND SURETY COMPANY
Hartford, Connecticut 06115

Bond No. 81S100565425BCA

Amount of Bond \$ 54,329.

Principal HECLA MINING COMPANY

Hereby decreased to \$ 44,000.

Obligee STATE OF UTAH DIVISION OF OIL, GAS AND MINING

As of the 3rd day of NOVEMBER, 19 89, the amount of the above described bond is hereby decreased from the sum of \$ 54,329. to the sum of \$ 44,000. The liability of the surety for any acts or defaults occurring after the effective date hereof, and for any acts or defaults occurring prior to the effective date hereof and not discovered within after the effective date hereof, shall in no event exceed the sum last named. The aggregate liability of the surety for any and all acts and defaults, whenever committed, shall in no event exceed the sum first named, it being the intent hereof to preclude cumulative liability. This certificate, when signed by the Obligee (Employer, or Insured) shall become part of the said bond.

Signed, sealed and dated this 3rd day of NOVEMBER, 19 89.

THE AETNA CASUALTY AND SURETY COMPANY

By Carla Holt
CARLA HOLT Attorney-in-Fact

This certificate was executed by the surety pursuant to my (our) request, and in consideration of a reduced premium I (we) hereby formally consent to the decrease.

Signed, sealed and dated this _____ day of _____, 19 ____.

(Witness)

(Seal)
(Obligee, Employer, or Insured)

Attest _____ By _____

INSTRUCTIONS TO AGENTS—IMPORTANT

Do not deliver this certificate to the Obligee (Employer, or Insured) until that party has signed, sealed and dated it. In case of individual, schedule, or specific excess indemnity, execution on behalf of the Obligee (Employer, or Insured) by the person whose bond is being decreased is not acceptable.

One signed copy must be returned to the surety.



POWER OF ATTORNEY AND CERTIFICATE OF AUTHORITY OF ATTORNEY(S)-IN-FACT

KNOW ALL MEN BY THESE PRESENTS, THAT THE AETNA CASUALTY AND SURETY COMPANY, a corporation duly organized under the laws of the State of Connecticut, and having its principal office in the City of Hartford, County of Hartford, State of Connecticut, hath made, constituted and appointed, and does by these presents make, constitute and appoint **Charles H. Steilen, James E. McTigue, Roy N. Arnold, George C. Schroeder, Lionel C. Greenwood, Linda Tichey or Carla Holt** - -

of **Spokane, Washington**, its true and lawful Attorney(s)-in-Fact, with full power and authority hereby conferred to sign, execute and acknowledge, at any place within the United States, or, if the following line be filled in, within the area there designated the following instrument(s):
by his/her sole signature and act, any and all bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any and all consents incident thereto

and to bind THE AETNA CASUALTY AND SURETY COMPANY, thereby as fully and to the same extent as if the same were signed by the duly authorized officers of THE AETNA CASUALTY AND SURETY COMPANY, and all the acts of said Attorney(s)-in-Fact, pursuant to the authority herein given, are hereby ratified and confirmed.

This appointment is made under and by authority of the following Standing Resolutions of said Company which Resolutions are now in full force and effect:

VOTED: That each of the following officers: Chairman, Vice Chairman, President, Any Executive Vice President, Any Senior Vice President, Any Vice President, Any Assistant Vice President, Any Secretary, Any Assistant Secretary, may from time to time appoint Resident Vice Presidents, Resident Assistant Secretaries, Attorneys-in-Fact, and Agents to act for and on behalf of the Company and may give any such appointee such authority as his certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors may at any time remove any such appointee and revoke the power and authority given him.

VOTED: That any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the Chairman, the Vice Chairman, the President, an Executive Vice President, a Senior Vice President, a Vice President, an Assistant Vice President or by a Resident Vice President, pursuant to the power prescribed in the certificate of authority of such Resident Vice President, and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary or by a Resident Assistant Secretary, pursuant to the power prescribed in the certificate of authority of such Resident Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact pursuant to the power prescribed in his or their certificate or certificates of authority.

This Power of Attorney and Certificate of Authority is signed and sealed by facsimile under and by authority of the following Standing Resolution voted by the Board of Directors of THE AETNA CASUALTY AND SURETY COMPANY which Resolution is now in full force and effect:

VOTED: That the signature of each of the following officers: Chairman, Vice Chairman, President, Any Executive Vice President, Any Senior Vice President, Any Vice President, Any Assistant Vice President, Any Secretary, Any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached.

IN WITNESS WHEREOF, THE AETNA CASUALTY AND SURETY COMPANY has caused this instrument to be signed by its Assistant Vice President, **Joseph P. Kiernan**, and its corporate seal to be hereto affixed this **28th** day of **June**, 19 **89**



THE AETNA CASUALTY AND SURETY COMPANY

By **Joseph P. Kiernan**
Joseph P. Kiernan
Vice President

State of Connecticut }
County of Hartford } ss. Hartford

On this **28th** day of **June**, 19 **89**, before me personally came **JOSEPH P. KIERNAN**, Vice President of THE AETNA CASUALTY AND SURETY COMPANY, the corporation described in and which executed the above instrument; that he/she knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; and that he/she executed the said instrument on behalf of the corporation by authority of his/her office under the Standing Resolutions thereof.



George A. Perry, Jr.
My commission expires March 31, 19 **91**
George A. Perry, Jr. Notary Public

CERTIFICATE

I, the undersigned, **Secretary** of THE AETNA CASUALTY AND SURETY COMPANY, a stock corporation of the State of Connecticut, DO HEREBY CERTIFY that the foregoing and attached Power of Attorney and Certificate of Authority remains in full force and has not been revoked; and furthermore, that the Standing Resolutions of the Board of Directors, as set forth in the Certificate of Authority, are now in force.

Signed and Sealed at the Home Office of the Company, in the City of Hartford, State of Connecticut. Dated this **3rd** day of **NOVEMBER**, 19 **89**



By **John W. Welch**
John W. Welch, Secretary

POWER OF ATTORNEY AND CERTIFICATE OF AUTHORITY OF ATTORNEY(S)-IN-FACT

KNOW ALL MEN BY THESE PRESENTS, THAT THE AETNA CASUALTY AND SURETY COMPANY, a corporation duly organized under the laws of the State of Connecticut, and having its principal office in the City of Hartford, County of Hartford, State of Connecticut, hath made, constituted and appointed, and does by these presents make, constitute and appoint **Charles H. Steilen, James E. McTigue, Roy N. Arnold, George C. Schroeder, Lionel C. Greenwood, Linda Tichey or Carla Holt** - -

of **Spokane, Washington**, its true and lawful Attorney(s)-in-Fact, with full power and authority hereby conferred to sign, execute and acknowledge, at any place within the United States, or, if the following line be filled in, within the area there designated, the following instrument(s):
by his/her sole signature and act, any and all bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any and all consents incident thereto

and to bind THE AETNA CASUALTY AND SURETY COMPANY, thereby as fully and to the same extent as if the same were signed by the duly authorized officers of THE AETNA CASUALTY AND SURETY COMPANY, and all the acts of said Attorney(s)-in-Fact, pursuant to the authority herein given, are hereby ratified and confirmed.

This appointment is made under and by authority of the following Standing Resolutions of said Company which Resolutions are now in full force and effect:

VOTED: That each of the following officers: Chairman, Vice Chairman, President, Any Executive Vice President, Any Senior Vice President, Any Vice President, Any Assistant Vice President, Any Secretary, Any Assistant Secretary, may from time to time appoint Resident Vice Presidents, Resident Assistant Secretaries, Attorneys-in-Fact, and Agents to act for and on behalf of the Company and may give any such appointee such authority as his certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors may at any time remove any such appointee and revoke the power and authority given him.

VOTED: That any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the Chairman, the Vice Chairman, the President, an Executive Vice President, a Senior Vice President, a Vice President, an Assistant Vice President or by a Resident Vice President, pursuant to the power prescribed in the certificate of authority of such Resident Vice President, and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary or by a Resident Assistant Secretary, pursuant to the power prescribed in the certificate of authority of such Resident Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact pursuant to the power prescribed in his or their certificate or certificates of authority.

This Power of Attorney and Certificate of Authority is signed and sealed by facsimile under and by authority of the following Standing Resolution voted by the Board of Directors of THE AETNA CASUALTY AND SURETY COMPANY which Resolution is now in full force and effect:

VOTED: That the signature of each of the following officers: Chairman, Vice Chairman, President, Any Executive Vice President, Any Senior Vice President, Any Vice President, Any Assistant Vice President, Any Secretary, Any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached.

IN WITNESS WHEREOF, THE AETNA CASUALTY AND SURETY COMPANY has caused this instrument to be signed by its Assistant Vice President, day of **June**, 19 **89**, and its corporate seal to be hereto affixed this **28th**

State of Connecticut }
County of Hartford } ss. Hartford



THE AETNA CASUALTY AND SURETY COMPANY
By *Joseph P. Kiernan*
Joseph P. Kiernan
Vice President

On this **28th** day of **June**, 19 **89**, before me personally came **JOSEPH P. KIERNAN**, Vice President of THE AETNA CASUALTY AND SURETY COMPANY, the corporation described in and which executed the above instrument; that he/she knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; and that he/she executed the said instrument on behalf of the corporation by authority of his/her office under the Standing Resolutions thereof.



George A. Perry, Jr.
My commission expires March 31, 19 **91**
George A. Perry, Jr. Notary Public

CERTIFICATE

I, the undersigned, **Secretary** of THE AETNA CASUALTY AND SURETY COMPANY, a stock corporation of the State of Connecticut, DO HEREBY CERTIFY that the foregoing and attached Power of Attorney and Certificate of Authority remains in full force and has not been revoked; and furthermore, that the Standing Resolutions of the Board of Directors, as set forth in the Certificate of Authority, are now in force.

Signed and Sealed at the Home Office of the Company, in the City of Hartford, State of Connecticut. Dated this **3rd** day of **NOVEMBER**, 19 **89**



By *John W. Welch*
John W. Welch, Secretary



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

March 3, 1997

David W. Godlewski
Environmental Manager
Cominco American Incorporated
15918 East Euclid Avenue
Spokane, Washington 99216-1815

Re: Formal Approval of Form and Amount of Reclamation Surety, Cominco American Incorporated, Apex Mine, M/053/004, Washington County, Utah

Dear Mr. Godlewski:

On ^{Feb.} ~~March~~ 26, 1997, the Board of Oil, Gas and Mining formally approved the proposed form and amount (\$48,200) of replacement reclamation surety for Cominco American Incorporated's ("Cominco"), Apex Mine. The reclamation surety is in the form of a corporate surety bond issued by U.S. Fidelity and Guaranty Company. The Division hereby grants its formal approval of the reclamation surety and the transfer of the existing permit from Hecla Mining Company to Cominco. Cominco will now assume full responsibility for all continued mining and reclamation activities associated with the Apex Mine.

Enclosed please find copies of the fully signed and executed Reclamation Contract, surety bond, and permit transfer forms for your files. By copy of this letter, we will return all previous reclamation contract forms, transfers and surety documents to Hecla Mining Company, which are no longer valid.

Thank you for your time, cooperation and patience in helping finalize this permitting action. Please call me should you have any questions in this regard.

Sincerely,

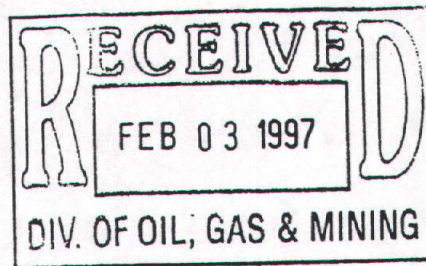
D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb

Enclosures

cc: Alan Wilson, Hecla, Coeur d'Alene Office
Sedgwick.ltr

FORM MR-RC
Revised June 10, 1996
RECLAMATION CONTRACT



File Number M/053/004

Effective Date Feb. 26, 1997

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION of OIL, GAS and MINING
1594 West North Temple Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
(801) 538-5291
Fax: (801) 359-3940

RECLAMATION CONTRACT
---ooOoo---

For the purpose of this RECLAMATION CONTRACT the terms below are defined as follows:

"NOTICE OF INTENTION" (NOI): (File No.)	<u>M/053/004</u>
(Mineral Mined)	<u>Germanium/Gallium/Copper</u>
"MINE LOCATION":	
(Name of Mine)	<u>Apex Mine</u>
(Description)	<u>Underground Mine located in Sections 6,7,</u>
	<u>1 and 2, R17 and 18 W, T43 S</u>
	<u>Washington County, Utah</u>
"DISTURBED AREA":	
(Disturbed Acres)	<u>9 Acres</u>
(Legal Description)	<u>(refer to Attachment "A")</u>
"OPERATOR":	
(Company or Name)	<u>Cominco American Incorporated</u>
(Address)	<u>P. O. Box 3087</u>
	<u>Spokane, WA 99220</u>
(Phone)	<u>(509) 747-6111</u>

"OPERATOR'S REGISTERED AGENT":

(Name)

(Address)

(Phone)

David W. Godlewski, Environmental M
Cominco American Incorporated

15918 East Euclid Avenue

Spokane, WA 99216-1815

(509) 922-8787

"OPERATOR'S OFFICER(S)":

George P. Cole, Vice President, Exploration

William J. Robertson, President

C. Bruce Diluzio, Secretary

"SURETY":

(Form of Surety - Attachment B)

MR Form 5 - Surety Bond

"SURETY COMPANY":

(Name, Policy or Acct. No.)

US Fidelity & Guaranty

Bond No.

"SURETY AMOUNT":

(Escalated Dollars)

\$48,200

"ESCALATION YEAR":

2002

"STATE":

State of Utah

"DIVISION":

Division of Oil, Gas and Mining

"BOARD":

Board of Oil, Gas and Mining

ATTACHMENTS:

A "DISTURBED AREA":

B "SURETY":

This Reclamation Contract (hereinafter referred to as "Contract") is entered into between Cominco American Incorporated the "Operator" and the Utah State Board of Oil, Gas and Mining ("Board").

WHEREAS, Operator desires to conduct mining operations under Notice of Intention (NOI) File No. M/053/004 which has been approved by the Utah State Division of Oil, Gas and Mining "Division" under the Utah Mined Land Reclamation Act, Sections 40-8-1 et seq., Utah Code Annotated, (1953, as amended) (hereinafter referred to as "Act") and implementing rules; and

WHEREAS, Operator is obligated to reclaim that area described as the Disturbed Area as set forth and in accordance with Operator's approved Reclamation Plan, and Operator is obligated to provide surety in form and amount approved by the Board, to assure reclamation of the Disturbed Area.

NOW, THEREFORE, the Board and the Operator agree as follows:

1. Operator agrees to conduct reclamation of the Disturbed Area in accordance with the Act and implementing regulations, the original Notice of Intention dated 2/10/84, and the original Reclamation Plan dated 2/10/84. The Notice of Intention as amended, and the Reclamation Plan, as amended, are incorporated by this reference and made a part hereof.
2. Concurrent with the execution hereof, Operator has provided surety to assure that reclamation is conducted, in form and amount acceptable to the Board. Such surety as evidenced by the Surety Contract is in the form of the surety attached hereto as Attachment B and made a part hereof. The Surety Contract shall remain in full force and effect according to its terms unless modified by the Board in writing. If the Surety Contract expressly provides for cancellation, then, within 60 days following the Division's receipt of notice that the Surety Company intends to cancel the Surety Contract, the Operator shall provide a replacement Surety Contract in a form and amount reasonably acceptable to the Board. If the Operator fails to provide an acceptable replacement Surety Contract, the Division may order the Operator to cease further mining activities and to begin immediate reclamation of the Disturbed Area.
3. Operator agrees to pay legally determined public liability and property damage claims resulting from mining to the extent provided in Section 40-8-7(1)(e) of the Act.
4. Operator agrees to perform all duties and fulfill all reclamation requirements applicable to the mine as required by the Act and implementing rules, the Notice of Intention, as amended and the Reclamation Plan, as amended.
5. The Operator's liability under this Contract shall continue in full force and effect until the Division certifies that the Operator has reclaimed the Disturbed Area in accordance with the Act and implementing rules, the Notice of Intention, as amended and the Reclamation Plan, as amended.
6. If reclamation of discrete sections of the Disturbed Area is completed to the satisfaction of the Division, and the Division finds that such sections are severable from the remainder of the Disturbed Area, Operator may request the Division to certify that Operator has reclaimed such discrete sections of the Disturbed Area in accordance with the Act and Implementing rules, the Notice of Intention, as

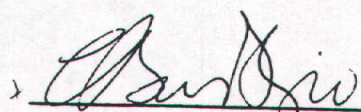
amended and the Reclamation Plan, as amended. If the Division makes such certification, Operator may make request to the (Board) that the aggregate face amount of the Surety Contract provided pursuant to paragraph 2 be reduced to an amount necessary to provide for completion of the remaining reclamation. The (Board) shall hear Operator's request for such reduction in accordance with the Board's Procedural Rules concerning requests for Agency Action.

7. Operator agrees to indemnify and hold harmless the State, Board and the Division from any claim, demand, liability, cost, charge, suit, or obligation of whatsoever nature arising from the failure of Operator or Operator's agents and employees, or contractors to comply with this Contract.
8. Operator may, at any time, submit a request to the Board to substitute surety. The Board, in its sole judgment and discretion, may approve such substitution if the substitute surety meets the requirements of the Act and the implementing rules.
9. This Contract shall be governed and construed in accordance with the laws of the State of Utah.
10. If Operator shall default in the performance of its obligations hereunder, Operator agrees to pay all costs and expenses, including reasonable attorney's fees and costs incurred by the Division and/or the Board in the enforcement of this Contract.
11. Any breach that the Division finds to be material of the provisions of this Contract by Operator may, at the discretion of the Division, result in an order to cease mining operations. After opportunity for notice and hearing, the Board of Oil, Gas and Mining may enter an order to revoke the Notice of Intention, order reclamation, or order forfeiture of the Surety Contract, or take such other action as is authorized by law.
12. In the event of forfeiture of the Surety Contract, Operator shall be liable for any additional costs in excess of the surety amount which are required to comply with this Contract. Any excess monies resulting from forfeiture of the Surety Contract, upon completion of reclamation and compliance with this Contract, shall be returned to the rightful claimant.
13. This Contract including the Notice of Intention, as amended and the Reclamation Plan, as amended, represents the entire agreement of the parties involved, and any modification must be approved in writing by the parties involved.

14. Each signatory below represents that he/she is authorized to execute this Contract on behalf of the named party.

Cominco American Incorporated
Operator Name

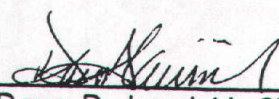
By: C. Bruce DiLuzio
Authorized Officer (Typed or Printed)


Authorized Officer's Signature

January 10, 1997
Date

SO AGREED this 26th day of FEBRUARY, 1997

AND APPROVED AS TO FORM AND AMOUNT OF SURETY:

BY 
Dave D. Lauriski, Chairman
Utah State Board of Oil, Gas and Mining

DIVISION OF OIL, GAS AND MINING:

By

James W. Carter, Director

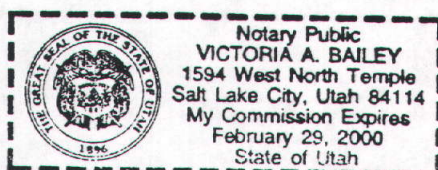
2/26/97
Date

STATE OF UTAH

COUNTY OF SALT LAKE

) ss:

On the 26th day of February, 19 97, personally appeared before me James W. Carter, who being duly sworn did say that he/~~she~~, the said JAMES W. Carter is the Director of the Division of Oil, Gas and Mining, Department of Natural Resources, State of Utah, and he/~~she~~ duly acknowledged to me that he/~~she~~ executed the foregoing document by authority of law on behalf of the State of Utah.



Victoria A. Bailey
Notary Public
Residing at: SALT LAKE CITY, UTAH

February 29, 2000
My Commission Expires:

OPERATOR:

COMINCO AMERICAN INCORPORATED
Operator Name

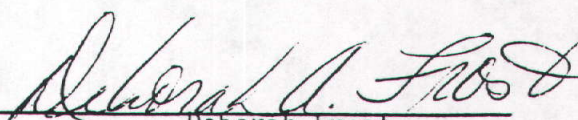
By 
Corporate Officer Position

January 10, 1997
Date

C. Bruce DiLuzio, Secretary
Signature

STATE OF WASHINGTON)
) ss:
COUNTY OF SPOKANE)

On the 10th day of January, 19 97, personally
appeared before me C. Bruce DiLuzio who
being by me duly sworn did say that he/~~she~~, the said _____
is the Secretary of Cominco American Incorporated
and duly acknowledged that said instrument was signed on behalf of said company
by authority of its bylaws or a resolution of its board of directors and said
C. Bruce DiLuzio duly acknowledged to me that said
company executed the same.


Notary Public Deborah Frost
Residing at: Spokane, WA

May 11, 1999
My Commission Expires:

ATTACHMENT "A"

Cominco American Incorporated
Operator

Apex Mine
Mine Name

M/053/004
Permit Number

Washington County, Utah

The legal description of lands to be disturbed is:

Southwest 1/4 of the Southwest 1/4 of Section 6, Township 43 South, Range 17 West

Southeast 1/4 of the Southeast 1/4 of Section 1, Township 43 South, Range 18 West

Washington County, Utah

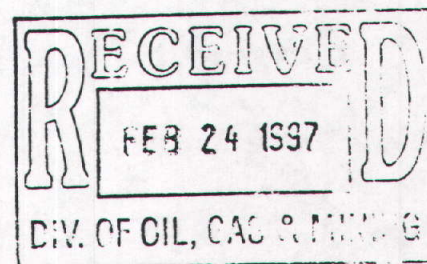
ATTACHMENT B

MR FORM 5
June 10, 1996

Bond Number _____
Permit Number M/053/004
Mine Name Apex Mine

Duplicate Original

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
Division of Oil, Gas and Mining
1594 West North Temple Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
Telephone: (801) 538-5291
Fax: (801) 359-3940



THE MINED LAND RECLAMATION ACT

SURETY BOND

The undersigned Cominco American Incorporated, as Principal, and United States Fidelity and Guaranty Company as Surety, hereby jointly and severally bind ourselves, our heirs, administrators, executors, successors, and assigns, jointly and severally, unto the State of Utah, Division of Oil, Gas and Mining (Division) in the penal sum of Forty Eight Thou Two Hund dollars (\$ 48,200.00).

Principal has estimated in the Mining and Reclamation Plan approved by the Division on the 24th day of August, 1994, that 9 acres of land will be disturbed by mining operation in the State of Utah.

A description of the disturbed land is attached as "Attachment A" to the Reclamation Contract, of which this document is an integral part.

The condition of this obligation is that if the Division determines that Principal has satisfactorily reclaimed the disturbed lands in accordance with the approved Mining and Reclamation Plan and has faithfully performed all requirements of the Mined Land Reclamation Act, and complied with the Rules and Regulations adopted in accordance therewith, then this obligation shall be void; otherwise it shall remain in full force and effect.

If the Mining and Reclamation Plan provides for periodic partial reclamation of the disturbed lands, and if the lands are reclaimed in accordance with such Plan, Act and regulations, then Principal may apply for a reduction in the amount of this Surety Bond.

In the converse, if the Mining and Reclamation Plan provides for a gradual increase in the area disturbed or the extent of disturbance, then, the Division may require that the amount of this Surety Bond be increased, with the written approval of the Surety.

This bond may be canceled by Surety after ninety (90) days following receipt by the Division and Principal of written notice of such cancellation. Surety's Liability shall then, at the expiration of said ninety (90) days, cease and terminate except that Surety will remain fully liable for all reclamation obligations of the Principal incurred prior to the date of termination.

Principal and Surety and their successors and assigns agree to guarantee said obligation and to indemnify, defend, and hold harmless the Division from any and all expenses (including attorney fees) which the Division may sustain in the collection of sums due hereunder.

Surety will give prompt notice to Principal and to the Division of the filing of any petition or the commencement of any proceeding relating to the bankruptcy, insolvency, reorganization, or adjustment of the debts of Surety, or alleging any violation or regulatory requirements which could result in suspension or revocation of the Surety's license to do business.

IN WITNESS WHEREOF, the Principal and Surety hereunto set their signatures and seals as of the dates set forth below.

Cominco American Incorporated
Principal (Permittee)

January 8, 1997
Date

R. S. Hallett
By (Name typed):

Assistant Secretary
Title

R. S. Hallett
Signature

Surety Company
United States Fidelity and Guaranty Company
6225 Smith Ave., Baltimore, MD 21209

January 8, 1997

Company Officer
Ava M. Schaefer
Attorney-in-Fact

Date

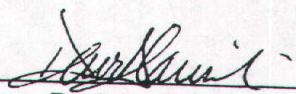
Title/Position

Ava M. Schaefer
Signature

Bond Number _____
Permit Number M/053/004
Mine Name Apex Mine

SO AGREED this 26TH day of FEBRUARY, 1997.

AND APPROVED AS TO FORM AND AMOUNT OF SURETY:



Dave D. Lauriski, Chairman
Utah State Board of Oil, Gas and Mining

*NOTE: Where one signs by virtue of Power of Attorney for a Surety, such Power of Attorney must be filed with this bond. If the Operator is a corporation, the bond shall be executed by its duly authorized officer.

AFFIDAVIT OF QUALIFICATION

On the 8th day of January, 1997, personally appeared before me
Ava M. Schaefer who being
by me duly sworn did say that he/she, the said Ava M. Schaefer is the
Attorney-in-Fact of United States Fidelity and and duly
Guaranty Company
acknowledged that said instrument was signed on behalf of said company by authority of its
bylaws or a resolution of its board of directors and said
Ava M. Schaefer duly acknowledged to me that said company
executed the same, and that he/she is duly authorized to execute and deliver the foregoing
obligations; that said Surety is authorized to execute the same and has complied in all
respects with the laws of Utah in reference to becoming sole surety upon bonds, undertaking
and obligations.

Signed: Ava M. Schaefer
Surety Officer Ava M. Schaefer

Title: Attorney-in-Fact

STATE OF Kentucky)
COUNTY OF State at Large) ss:

Subscribed and sworn to before me this 8th day of January, 1997.

Frieda Cyrus
Notary Public
Residing at: Lexington, Kentucky

My Commission Expires:

8-11, 1998

United States Fidelity and Guaranty Company

Power of Attorney

No. 109897



Know all men by these presents: That **United States Fidelity and Guaranty Company**, a corporation organized and existing under the laws of the State of Maryland and having its principal office at the City of Baltimore, in the State of Maryland, does hereby constitute and appoint **James H. Godfrey, Jr.**, **Phillip S. McCrorie** and **Ava M. Schaefer**

of the City of **Lexington**, State of **Kentucky**, its true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety to, and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof on behalf of the Company in its business of guaranteeing the fidelity of persons; guaranteeing the performance of contracts; and executing or guaranteeing bonds and undertaking required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, the said **United States Fidelity and Guaranty Company**, has caused this instrument to be sealed with its corporate seal, duly attested by the signatures of its Vice President and Assistant Secretary, this **7th** day of **June**, A.D. 19**96**.



United States Fidelity and Guaranty Company,

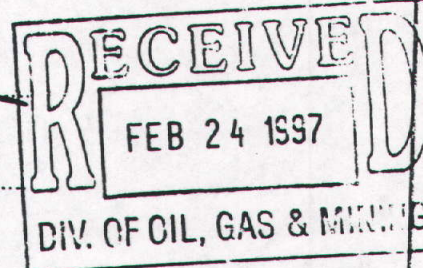
(Signed) By *James H. Godfrey, Jr.* Vice President

(Signed) By *Thomas J. Fitzgerald* Assistant Secretary

SS:

State of Maryland)

Baltimore City)



On this **7th** day of **June**, A.D. 19**96**, before me personally came **Gary A. Wilson**, Vice President of **United States Fidelity and Guaranty Company**, and **Thomas J. Fitzgerald**, Assistant Secretary of said Company, with both of whom I am personally acquainted, who being by me severally duly sworn, said, that they, the said **Gary A. Wilson** and **Thomas J. Fitzgerald** were respectively the Vice President and the Assistant Secretary of the said **United States Fidelity and Guaranty Company**, the corporation described in and which executed the foregoing Power of Attorney; that they each knew the seal of said corporation; that the seal affixed to said Power of Attorney was such corporate seal, that it was so affixed by order of the Board of Directors of said corporation, and that they signed their names thereto by like order as Vice President and Assistant Secretary, respectively, of the Company.

My Commission expires the **1st** day of **August**, A.D. 19**98**.

(Signed) By *James L. Rudright* Notary Public

This Power of Attorney is granted under and by authority of the following Resolutions adopted by the Board of Directors of the **United States Fidelity and Guaranty Company** on September 24, 1992:

Resolved, that in connection with the fidelity and surety insurance business of the Company, all bonds, undertakings, contracts and other instruments relating to said business may be signed, executed, and acknowledged by persons or entities appointed as Attorney(s)-in-Fact pursuant to a Power of Attorney issued in accordance with these resolutions. Said Power(s) of Attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman, or the President, or an Executive Vice President, or a Senior Vice President, or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the foregoing officers and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Attorney(s)-in-Fact for purposes only of executing in and attesting bonds and undertakings and other writings obligatory in the nature thereof, and, unless subsequently revoked and subject to any limitations set forth therein, any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is validly attached.

Resolved, That Attorney(s)-in-Fact shall have the power and authority, unless subsequently revoked and, in any case, subject to the terms and limitations of the Power of Attorney issued to them, to execute and deliver on behalf of the Company and to attach the seal of the Company to any and all bonds and undertakings, and other writings obligatory in the nature thereof, and any such instrument executed by such Attorney(s)-in-Fact shall be as binding upon the Company as if signed by an Executive Officer and sealed and attested to by the Secretary of the Company.

I, **Thomas J. Fitzgerald**, an Assistant Secretary of the **United States Fidelity and Guaranty Company**, do hereby certify that the foregoing are true excerpts from the Resolutions of the said Company as adopted by its Board of Directors on September 24, 1992 and that these Resolutions are in full force and effect.

I, the undersigned Assistant Secretary of the **United States Fidelity and Guaranty Company**, do hereby certify that the foregoing Power of Attorney is in full force and effect and has not been revoked.

In Testimony Whereof, I have hereunto set my hand and the seal of the **United States Fidelity and Guaranty Company**, on this **8th** day of **January**, 19**97**



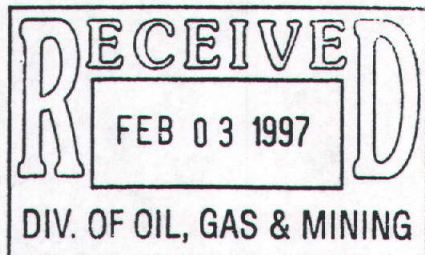
Thomas J. Fitzgerald Assistant Secretary

For Division Use:

File No.: M/053/004

Effective Date: Feb. 26, 1997

DOGM Lead: DWH



STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1594 West North Temple Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
Telephone: (801) 538-5291
Fax: (801) 359-3940

TRANSFER OF NOTICE OF INTENTION
LARGE MINING OPERATIONS

—ooOoo—

1. (a) Notice of intention to be transferred (file number): M/053/004
(b) Name of mining operation: Apex Mine
(c) Location of mining operation (county): Washington
(d) Name, telephone number and mailing address of the operator currently holding the notice of intention (transferor):
Hecla Mining Company Phone: (801) 628-1635
P. O. Box 2407
St. George, UT 84771
2. (a) Name, telephone number and mailing address of the operator acquiring the notice of intention (transferee):
Cominco American Incorporated Phone: (509) 747-6111
P. O. Box 3087
Spokane, WA 99220
(b) Name, telephone number and address of the authorized representatives of the Transferee to whom any notices under the provisions of the Utah Mined Land Reclamation Act may be sent:
David W. Godlewski, Environmental Manager
Cominco American Incorporated
15918 East Euclid Avenue
Spokane, WA 99216-1815
3. (a) The total disturbed area identified in the approved notice of intention: 9 acre
(b) The actual number of acres disturbed by the operation through date of transfer:
9 (disturbed by previous operators)

(c) Attach a legal description of above acreages as Appendix "A" and a map of suitable scale with actual disturbed areas clearly shown and identified.

4. This application must be accompanied by a fully executed and signed Reclamation Contract (Form MR-RC).

*pertinent
Disturbed
Area
map is
in the mine
plan applic
(can be
pulled if
necessary).*

STATE OF IDAHO)
) ss.
COUNTY OF KOOTENAI)

SWORN STATEMENT OF TRANSFEROR

I, Nathaniel K. Adams being first duly sworn under oath, depose and say that
I am Assistant Secretary(officer or agent) of HECLA MINING COMPANY
(Corporation/Company Name); and that I am duly authorized to execute and deliver the
foregoing obligations; that I have read the said application and fully know the contents
thereof; that all statements contained in the transfer application are true and correct to the
best of my knowledge and belief. By execution of this statement I certify that the Transferor
is in full compliance with the Utah Mined Land Reclamation Act, the Rules and Regulations
promulgated thereunder, and the terms and conditions of Notice of Intention No. M/053/004



Signature

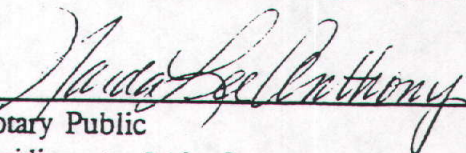
NATHANIEL K. ADAMS

Name (Typed or Print)

Assistant Secretary

Title

Subscribed and sworn before me this 24th day of January, 1997.



Notary Public
Residing at: Athol

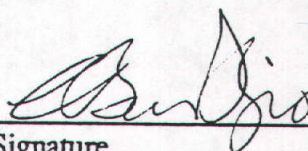
My commission Expires:

August 5, ~~19~~ 2000

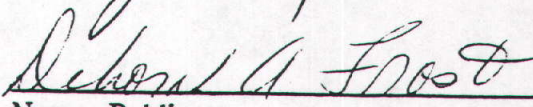
STATE OF WASHINGTON)
) ss.
COUNTY OF SPOKANE)

FINAL SWORN STATEMENT OF TRANSFEREE

C. Bruce DiLuzio being first duly sworn under oath, depose and say that I am Secretary (officer or agent) of Cominco American Incorporated (Corporation/Company Name); and that I am duly authorized to execute and deliver the foregoing obligations; that I have read the application and fully understand the contents thereof; that all statements contained in the transfer application are true and correct to the best of my knowledge and belief. By execution of this statement, the Transferee agrees to be bound by the terms and conditions of Notice of Intention No. M/053/004, the Utah Mined Land Reclamation Act, and the Rules and Regulations promulgated thereunder.


Signature
C. Bruce DiLuzio
Name (Typed or Print)
Secretary
Title

Subscribed and sworn before me this 10th day of January, 1997.


Notary Public
Residing at: Spokane, WA

My commission Expires:

5/11, 1999.

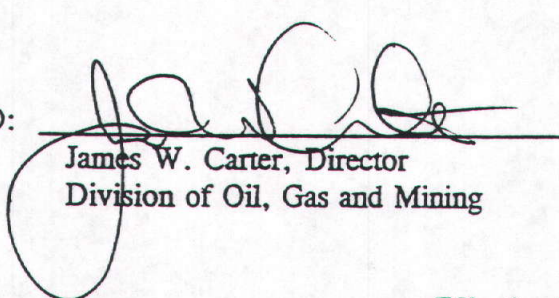
CERTIFICATION OF APPROVAL

This is to certify that I have examined the foregoing application and do hereby grant the same, subject to the following limitations and conditions:

- (a) This transfer of notice of intention grants only the right to affect the lands described in Appendix "A".
- (b) The transferee has provided to the Division a fully executed and signed Reclamation Contract (Form MR-RC). The surety shall be effective on the date of transfer.
- (c) The transferee, or such other person as required by UCA 1953, Title 40-8, has acquired legal right to mine for lands described in Appendix "A".

COMMENTS:

APPROVED:


James W. Carter, Director
Division of Oil, Gas and Mining

Effective Date:

NOI No.:

2/26/97
M/053/Q04

APPENDIX "A"

Cominco American Incorporated
Operator Mine Name

Apex Mine

M/053/004
Permit Number

Washington

County, Utah

The legal description of lands to be disturbed is:

Southwest 1/4 of the Southwest 1/4 of Section 6, Township 43 South, Range 17 West
Southeast 1/4 of the Southeast 1/4 of Section 1, Township 43 South, Range 18 West
Washington County, Utah

Via Federal Express

teckcominco

Catherine Suda
Geologist, Land Administration

m/53/004

March 21, 2002

RECEIVED

MAR 22 2002

DIVISION OF
OIL, GAS AND MINING

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program
Utah Dept. of Natural Resources
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, UT 84114-5801

Dear Mr. Hedberg:

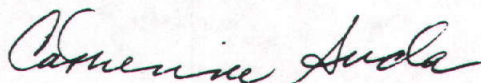
Re: Five-year Review Update, Reclamation Contract M053004

Attached is a map depicting the permit area for Reclamation Contract M053004 covering the Apex Mine in Washington County, Utah. Note that no mining activity has taken place since Cominco American, now Teck Cominco American, acquired the property. There are no active mining operations on the property at this time. No additional facilities have been built since the original reclamation contract was completed in 1984 by Hecla Mining Co.

Teck Cominco American has undertaken reclamation of several of the existing adits and shafts on the property in the last month. Openings listed on the map as numbers 2,3,4 and 7 have been capped with foam plugs and backfill material and warning signs have been posted. Location 6 was fenced for safety. Next year's plan is to reclaim the existing quarry on the mine property.

If you would like additional information during your five-year review process, please feel free to contact either David Godlewski, Environmental and Public Relations Manager, or me in the Spokane office.

Sincerely,



Catherine Suda
Geologist, Land Administration

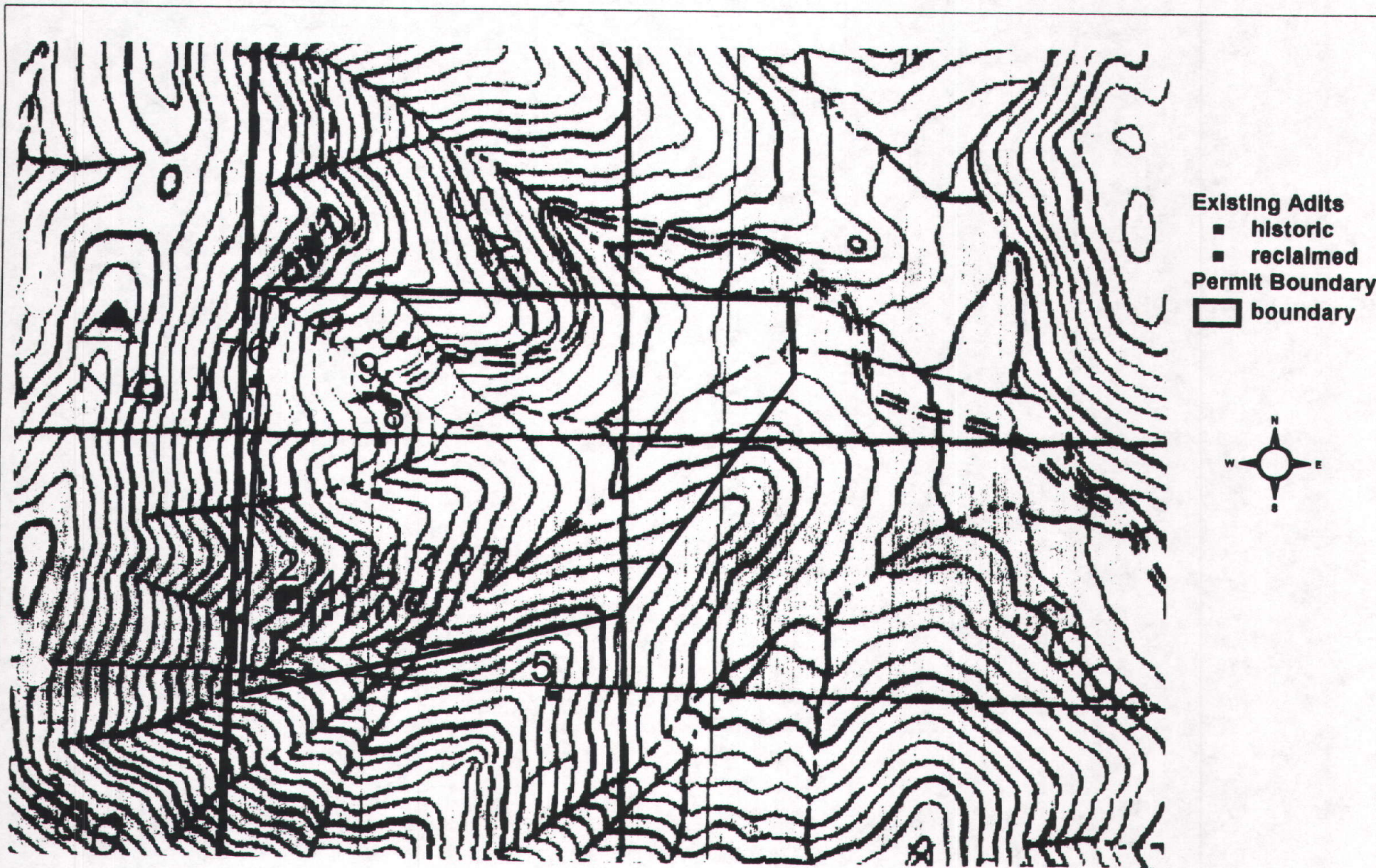
enc.

cc: D. W. Godlewski

Teck Cominco American Incorporated

15918 East Euclid Avenue, Spokane, WA 99216

PO Box 3087, Spokane, WA 99220 ■ telephone: (509) 747-6111 ■ fax: (509) 922-8767



Apex Mine Site Plan

M/53/004

From: Doug Jensen
To: Joelle Burns
Date: 1/28/03 1:20PM
Subject: Apex Mine

I spoke to David Godlewski of Cominco American concerning the fact that the Apex Mine is approaching the ten year no-activity phase of our rules.

He stated that the mine was being held as a strategic reserve for their germanium and gallium production quotas. And because this reserve is not needed at this time the mine would probably remain inactive for the foreseeable future.

He did say they have been closing some of the open workings on the property. I asked to be notified this summer when they were on the property so I could document some of the work. He stated that it would probably be sometime in March or April when they started up again.

I did mention the possibility of addressing the board for an extension of the time frame for board ordered reclamation of the site. I'll have to research to see when the ten year deadline will fall.

Please file under M/053/004



State of Utah

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Robert L. Morgan
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

October 24, 2003

David Godlewski
Teck Cominco American, Inc.
15918 East Euclid Avenue
P.O. Box 3087
Spokane, Washington 99220

Subject: Bond Reduction, Tech Cominco American, Inc., Apex Mine, M/053/004, Washington County, Utah

Dear Mr. Godlewski:

Thank you for taking the time to meet with me at the Apex Mine on September 4, 2003. This inspection was at your request to inspect the Backfill Rock Quarry #1 that had been reclaimed. The field inspection of this area confirmed that the recontouring of this area was satisfactory and release of the regrading portion of the bond that covers this area can be initiated.

A review of the Apex Mine surety estimate shows that a total of \$800 had been calculated for the regrading and stabilization of this area. An additional \$447 dollars has been included for the revegetation of this area. The revegetation portion of the bond is not available for release due to the fact that the area has not been seeded. This amount will be available when the vegetation in this area has achieved a cover minimum of 70% of the surrounding plant community.

Because the amount that can be released for the regrading of the quarry area is relatively small (\$800), the Division questions the efficiency of initiating a reduction of the bond thru the surety company. If you feel that this reduction of the present surety is worthwhile please notify me and I will complete the process to affect the release.

If you have any questions please contact me at (801) 538-5382.

Sincerely,

Doug Jensen
Reclamation Engineer



teckcominco

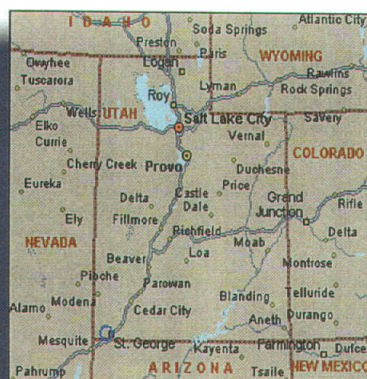
Apex Mine

D.W.Godlewski
Environmental & Public Affairs Manager
Teck Cominco American Incorporated

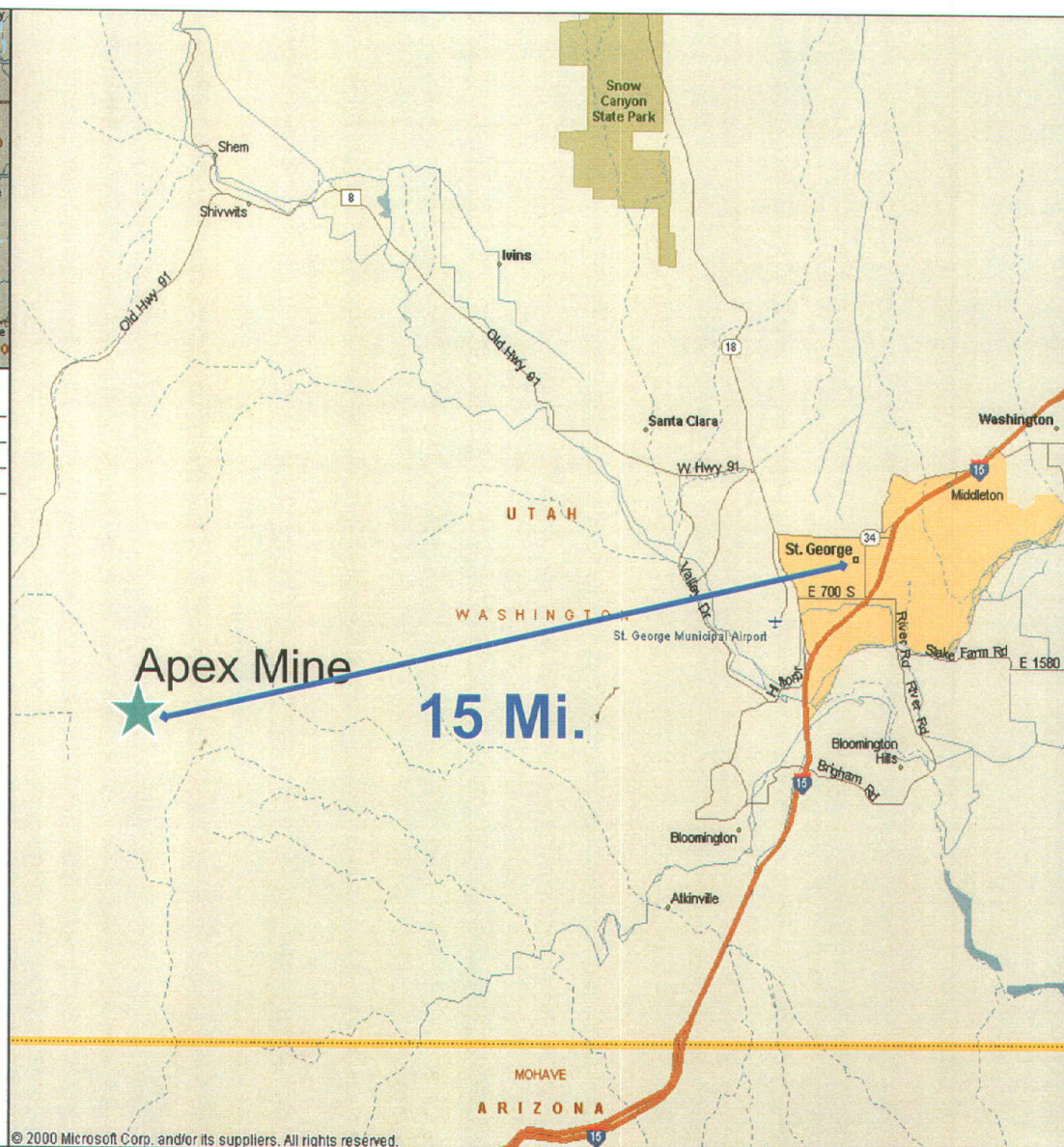
2003 Remediation Issues

- Permanent closure of Apex 7
- Closure of West-side openings
- Cleanup of site
 - Cleanup of compressor
 - Remove debris in office
 - Disposal of drill core

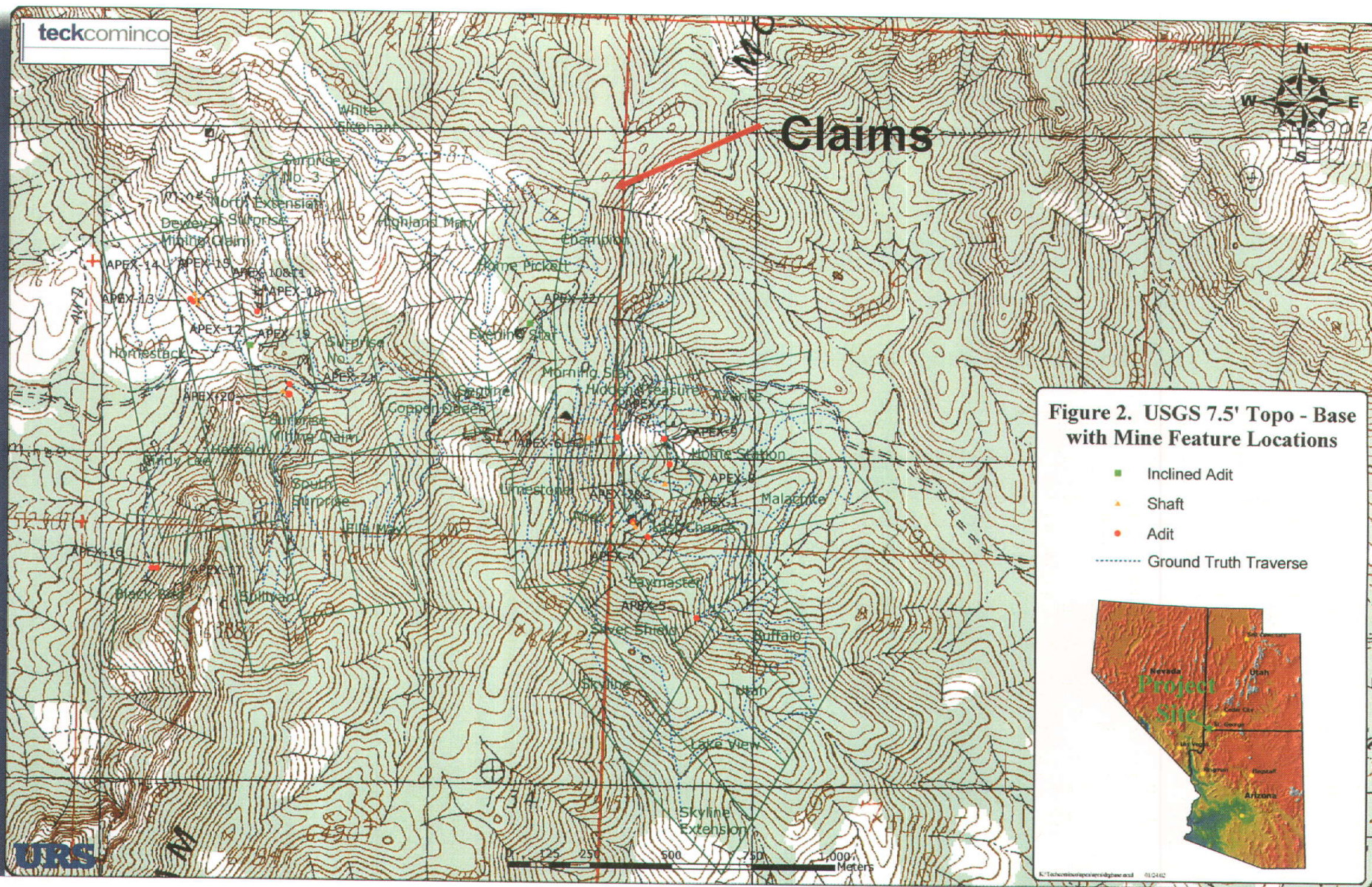
Location



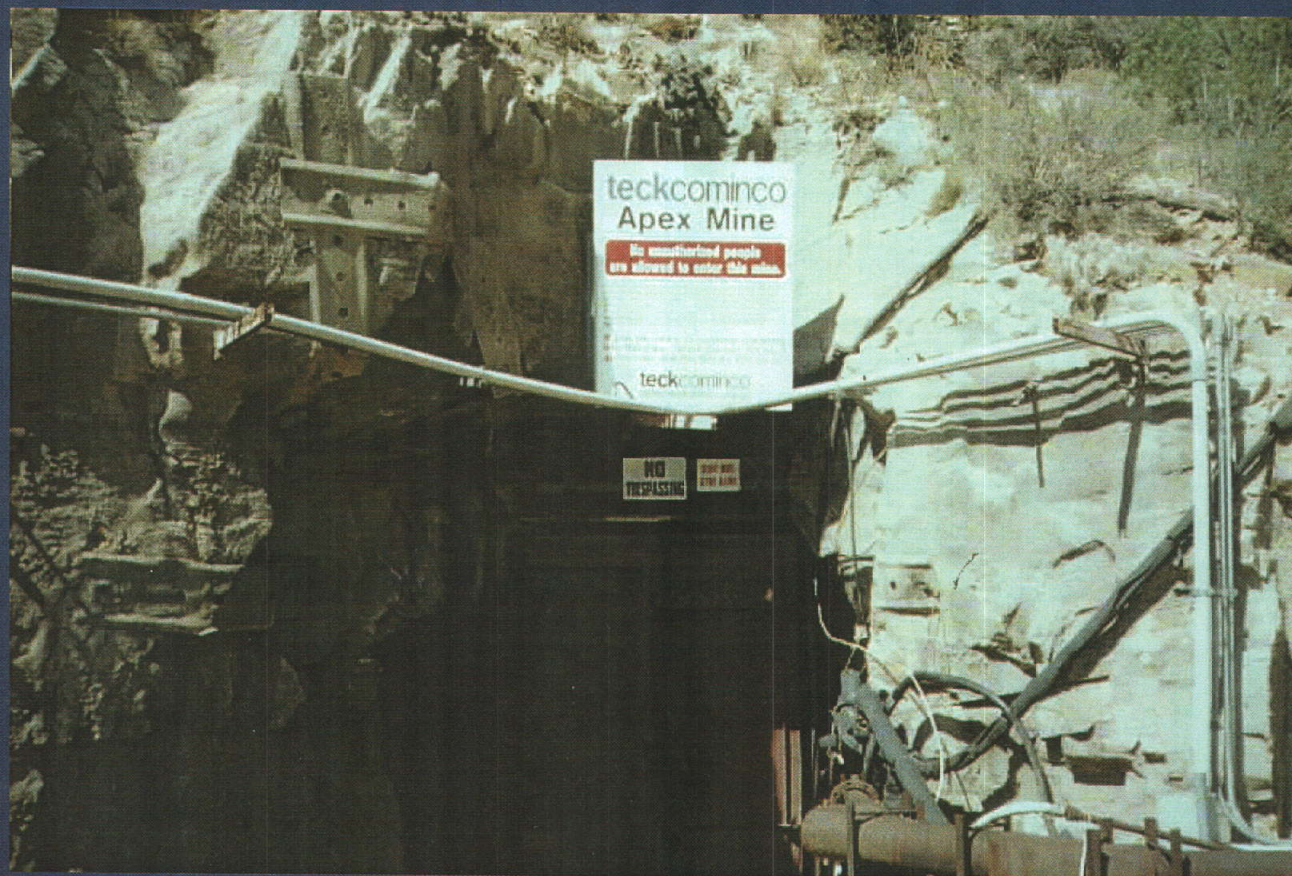
- ☐ Populated Places
- ☐ Boundaries
- ☐ Transportation
- ☐ Parks and Reserves
- ☐ Miscellaneous



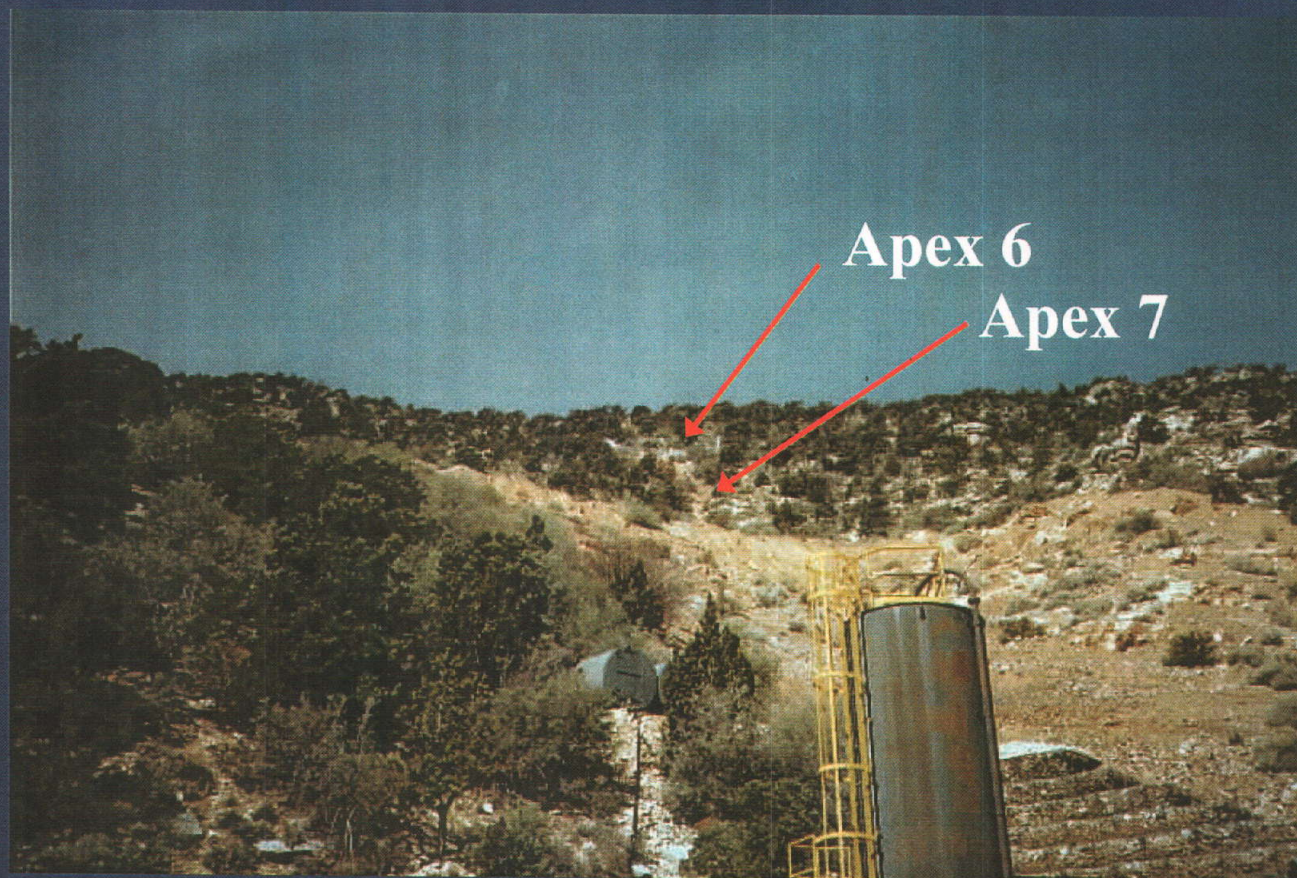
Site Topography Map



Main Portal (Apex 9)



East-side view up to Apex 6&7



teckcominco

Apex 6



Apex 7 Prior to Fire



Apex 7 Post-fire



teckcominco

Dust Plume from shot



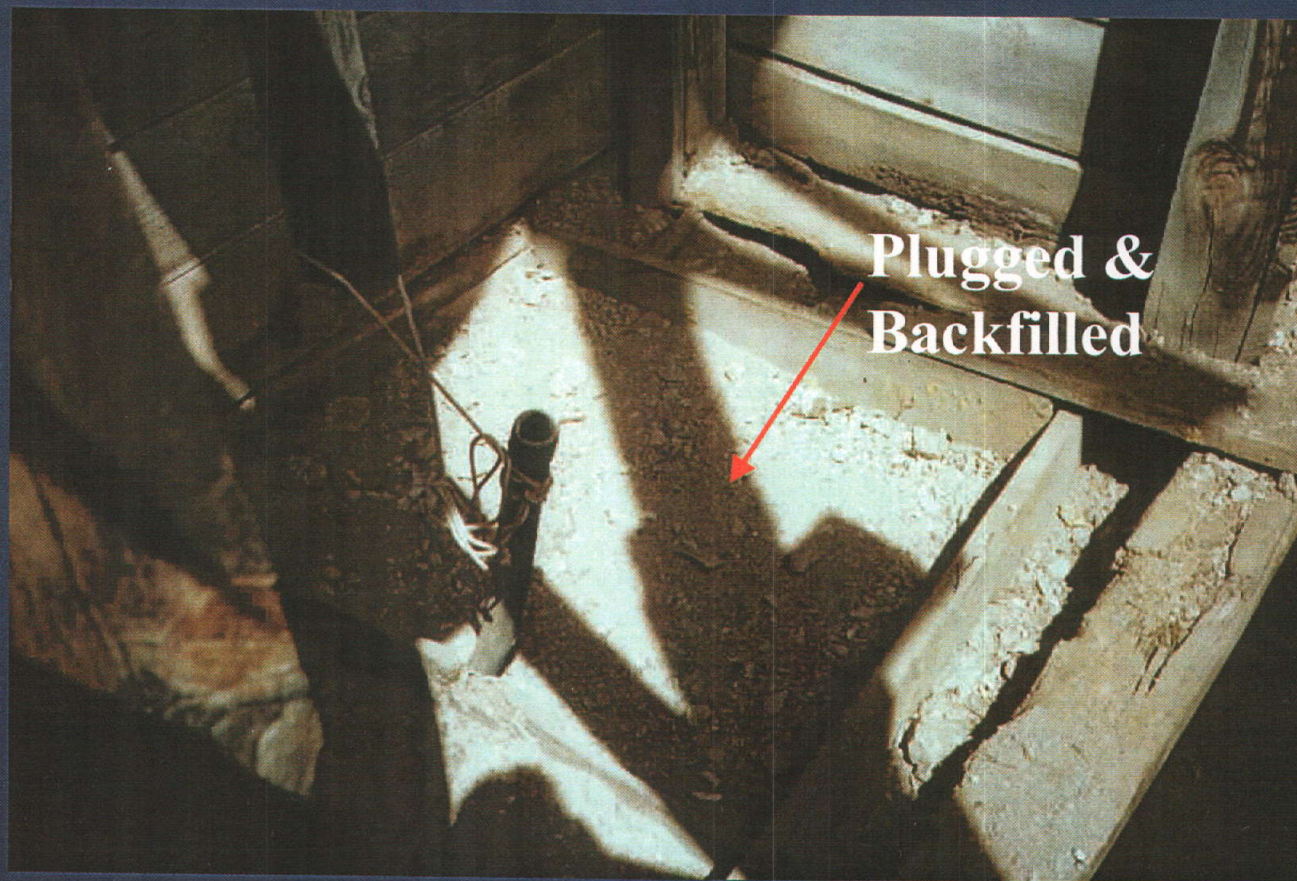
Apex 7 After Blasting



Underground Workings



Paymaster Shaft (Apex 2)



teckcominco

Demolished Compressor



Compressor after 2003 Cleanup



Office Vandalism



Office after 2003 Cleanup



Drill Core Outside Office

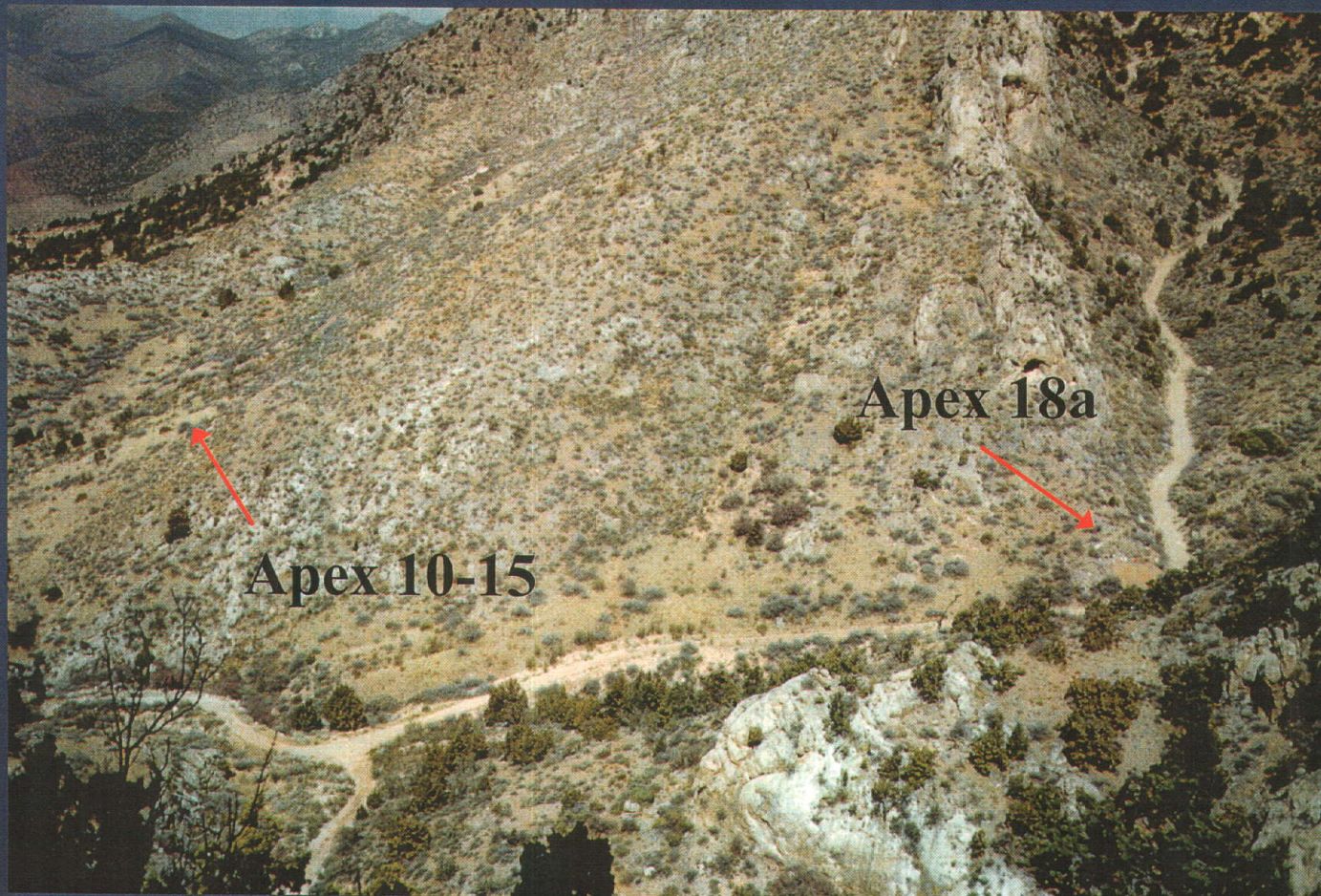


teckcominco

After 2003 Cleanup



West-side north workings

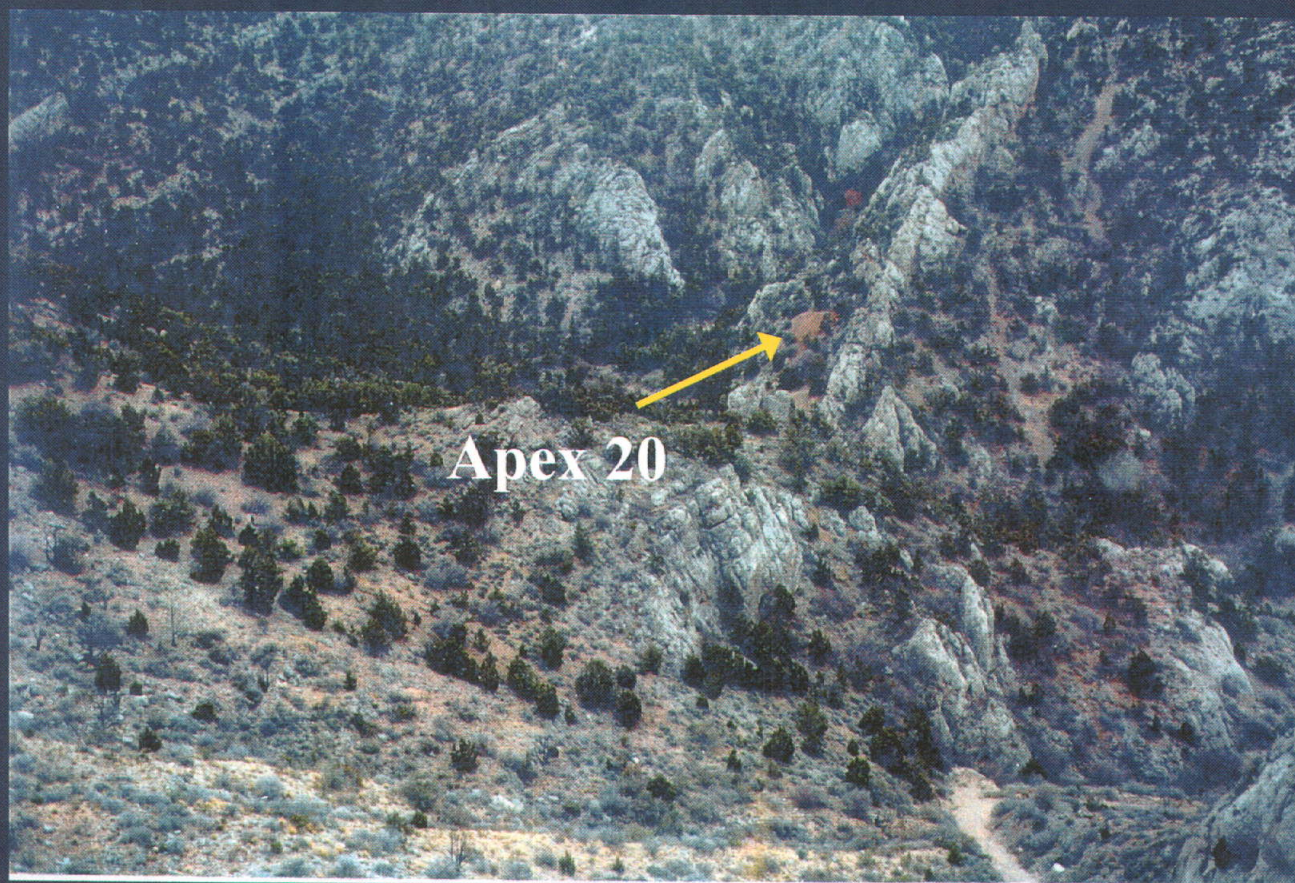


teckcominco

Apex 18A



West-side south workings

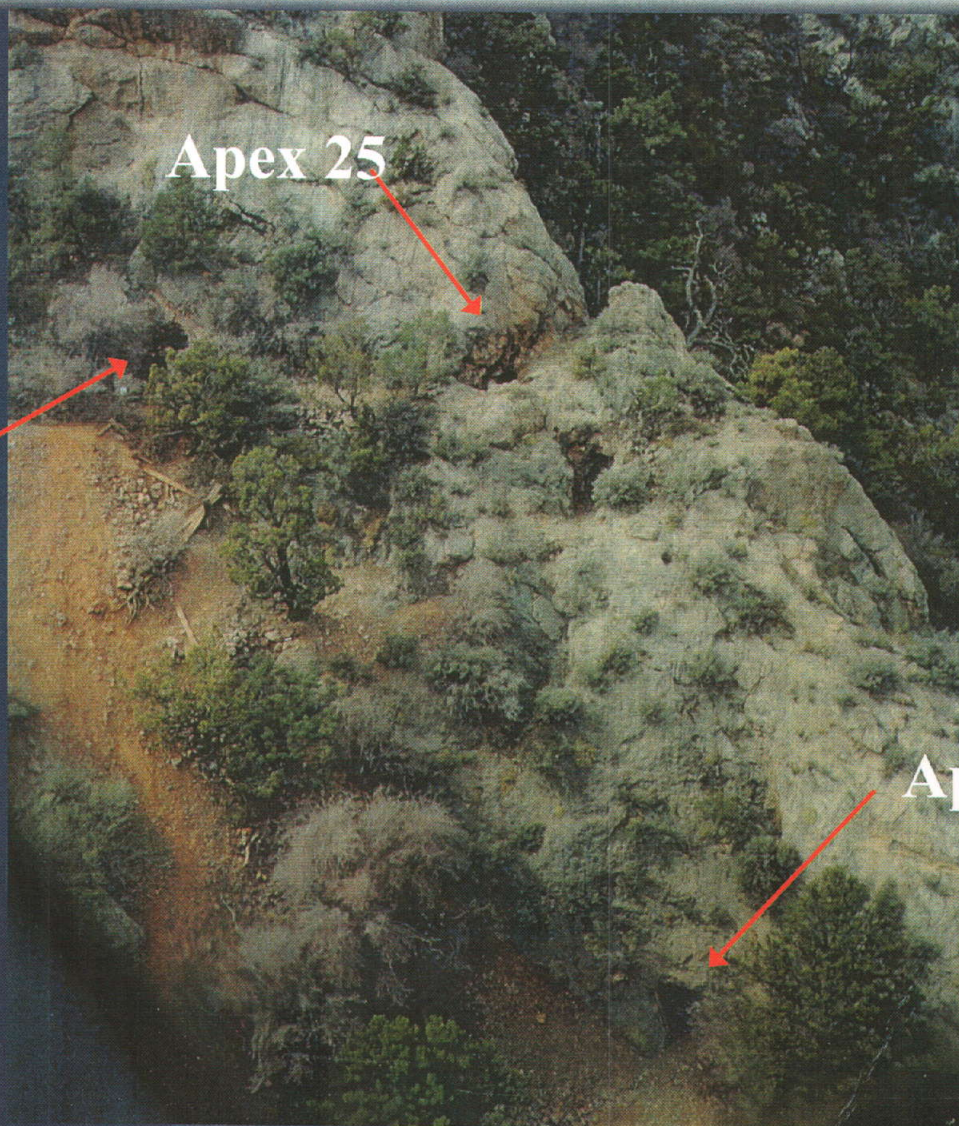


West-side south workings

Apex 20

Apex 25

Apex 21



teckcominco

Apex 20



teckcominco

Apex 21



teckcominco

Apex 25



Framing up closure



teckcominco

Apex 25 Platform Complete



teckcominco

New West Side Gate



teckcominco

Quarry Reclamation



STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1594 West North Temple - Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
Telephone: (801) 538-5291
Fax: (801) 359-3940

RECEIVED

JAN 06 2003

DIV. OF OIL, GAS & MINING

ANNUAL REPORT OF MINING OPERATIONS

The informational requirements of this form are based on provisions of the Mined Land Reclamation Act, Title 40-8, Utah Code Annotated 1953, as amended, and the General Rules as promulgated under the Utah Minerals Regulatory Program. An operator conducting mining operations under a Notice of Intention must file an annual operations and progress report (FORM MR-AR) with the Division.

I. General Information

1. Report Time Period: From (mo./yr.) 01/02 To (mo./yr.) 12/02
 2. DOGM File Number (Mine No): M / 053 / 004
 3. Mine Name: Apex Mine
 4. Mineral(s) Mined (or permitted to mine): Germanium, Gallium, Copper
 5. Type of mine ☐ Surface Mine or ☒ Underground Mine
 6. Legal Description (Location of Lands Affected):
1/4, SE 1/4, SE 1/4, Section 1, Township 43S, Range 18W
1/4, 1/4, 1/4, Section , Township , Range
1/4, 1/4, 1/4, Section , Township , Range
 7. Name of Operator or Company: Cominco American Incorporated
 8. Permanent Street Address: 15918 East Euclid Avenue
City, State, Zip: Spokane, WA 99216
Phone: (509) 922-8787 Fax: (509) 922-8767
 9. Company Representative (or designated operator):
Name: David W. Godlewski
Title: Environmental Manager
Business Address: 15918 East Euclid Avenue
City, State, Zip: Spokane, WA 99216
Phone: (509) 922-8787 Fax: (509) 892-2591
- ☒ Please check if any of the above information has changed since previous year.

II. Mining and Reclamation

1. Was there any mine related activity during the past year? Yes ☐ No ☒
2. If no - what was the last year of activity? 1989
3. If yes - how much ore or mineral was mined? N/A

4. Briefly describe the type of work performed, volume of material moved, and any new or additional surface disturbances that occurred during the past year.
N/A
5. How much **additional acreage** was disturbed during the past year? N/A
6. How much acreage was **reclaimed** during the past year? N/A
7. Briefly describe the reclamation work performed during the past year. This description should include methods employed, and an evaluation of the results.
N/A
8. What is the **total** disturbed acreage of entire project at years end? 9
9. Briefly summarize any mining and/or reclamation plans for the upcoming year.
No plans

NOTE: Section III., "Additional Information" applies only to **large mining operations**.

III. Additional Information

1. An updated surface facilities map should be attached if there have been significant changes since the previous map was submitted.
2. Any monitoring results or other reports that are required under the terms of the approved notice of intention should also be attached.

IV. Signature Requirement

I hereby certify that the foregoing is true and correct.

Name (Typed or Print):

David W. Godlewski

Title of Operator:

Environmental Manager

Signature of Operator:



Date:

January 2, 2003

File Number M/053/004

Effective Date Feb 22, 2002

Other Agency File Number _____

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION of OIL, GAS and MINING

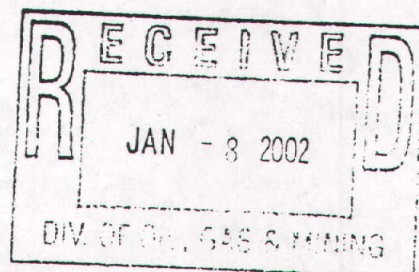
1594 West North Temple Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

(801) 538-5291

Fax: (801) 359-3940



RECLAMATION CONTRACT

---ooOoo---

For the purpose of this RECLAMATION CONTRACT the terms below are defined as follows:

"NOTICE OF INTENTION" (NOI): (File No.)
(Mineral Mined)

M/053/004

Germanium/Gallium/Copper

"MINE LOCATION":
(Name of Mine)
(Description)

Apex mine

Underground mine located in Section 6,
T43S, R17W and Section 1, T43S, R18W,
Washington County, Utah

"DISTURBED AREA":
(Disturbed Acres)
(Legal Description)

9 Acres

(refer to Attachment "A")

"OPERATOR":
(Company or Name)
(Address)

Teck Cominco American Incorporated

15918 East Euclid Avenue

P.O. Box 3087

Spokane, WA 99220

(509) 747-6111

(Phone)

m/053/004

"OPERATOR'S REGISTERED AGENT":

(Name)

(Address)

(Phone)

C T Corporation System

50 West Broadway 8th Floor

Salt Lake City, Utah 84101-2006

(801) 364-5101

"OPERATOR'S OFFICER(S)":

See Attached

"SURETY":

(Form of Surety - Attachment B)

Surety Bond

"SURETY COMPANY":

(Name, Policy or Acct. No.)

St. Paul Fire and Marine Insurance Co.
#KE7450

"SURETY AMOUNT":

(Escalated Dollars)

\$57,300
\$48,200

PS Apr 19, 2002

"ESCALATION YEAR":

2002 2007

"STATE":

"DIVISION":

State of Utah

Division of Oil, Gas and Mining

"BOARD":

Board of Oil, Gas and Mining

ATTACHMENTS:

A "DISTURBED AREA":

B "SURETY":

This Reclamation Contract (hereinafter referred to as "Contract") is entered into between Teck Cominco American Incorporated the "Operator" and the Utah State Division of Oil, Gas and Mining ("Division").

WHEREAS, Operator desires to conduct mining operations under Notice of Intention (NOI) File No. M/053/004 which has been approved by the Utah State Division of Oil, Gas and Mining under the Utah Mined Land Reclamation Act, Sections 40-8-1 et seq., Utah Code Annotated, (1953, as amended) (hereinafter referred to as "Act") and implementing rules; and

WHEREAS, Operator is obligated to reclaim that area described as the Disturbed Area as set forth and in accordance with Operator's approved Reclamation Plan, and Operator is obligated to provide surety in form and amount approved by the Division, to assure reclamation of the Disturbed Area.

NOW, THEREFORE, the Division and the Operator agree as follows:

1. Operator agrees to conduct reclamation of the Disturbed Area in accordance with the Act and implementing regulations, the original Notice of Intention dated February 10, 1984, and the original Reclamation Plan dated February 10, 1984. The Notice of Intention as amended, and the Reclamation Plan, as amended, are incorporated by this reference and made a part hereof.
2. Concurrent with the execution hereof, Operator has provided surety to assure that reclamation is conducted, in form and amount acceptable to the Division. Such surety as evidenced by the Surety Contract is in the form of the surety attached hereto as Attachment B and made a part hereof. The Surety Contract shall remain in full force and effect according to its terms unless modified by the Division in writing. If the Surety Contract expressly provides for cancellation, then, within 60 days following the Division's receipt of notice that the Surety Company intends to cancel the Surety Contract, the Operator shall provide a replacement Surety Contract in a form and amount reasonably acceptable to the Division. If the Operator fails to provide an acceptable replacement Surety Contract, the Division may order the Operator to cease further mining activities and to begin immediate reclamation of the Disturbed Area.
3. Operator agrees to pay legally determined public liability and property damage claims resulting from mining to the extent provided in Section 40-8-7(1)(e) of the Act.
4. Operator agrees to perform all duties and fulfill all reclamation requirements applicable to the mine as required by the Act and implementing rules, the Notice of Intention, as amended and the Reclamation Plan, as amended.
5. The Operator's liability under this Contract shall continue in full force and effect until the Division certifies that the Operator has reclaimed the Disturbed Area in accordance with the Act and implementing rules, the Notice of Intention, as amended and the Reclamation Plan, as amended.
6. If reclamation of discrete sections of the Disturbed Area is completed to the satisfaction of the Division, and the Division finds that such sections are severable from the remainder of the Disturbed Area, Operator may request the Division to certify that Operator has reclaimed such discrete sections of the Disturbed Area in accordance with the Act and Implementing rules, the Notice of Intention, as amended and the Reclamation Plan, as amended. If the Division makes such certification, Operator may make request to the Division that the aggregate face amount of the Surety Contract provided pursuant to paragraph 2 be reduced to an amount necessary to provide for completion of the remaining reclamation. The Division shall hear Operator's

request for such reduction in accordance with the Board's Procedural Rules concerning requests for Agency Action.

7. Operator agrees to indemnify and hold harmless the State, Board and the Division from any claim, demand, liability, cost, charge, suit, or obligation of whatsoever nature arising from the failure of Operator or Operator's agents and employees, or contractors to comply with this Contract.
8. Operator may, at any time, submit a request to the Division to substitute surety. The Division may approve such substitution if the substitute surety meets the requirements of the Act and the implementing rules.
9. This Contract shall be governed and construed in accordance with the laws of the State of Utah.
10. If Operator shall default in the performance of its obligations hereunder, Operator agrees to pay all costs and expenses, including reasonable attorney's fees and costs incurred by the Division and/or the Board in the enforcement of this Contract.
11. Any breach that the Division finds to be material of the provisions of this Contract by Operator may, at the discretion of the Division, result in an order to cease mining operations. After opportunity for notice and hearing, the Board of Oil, Gas and Mining may enter an order to revoke the Notice of Intention, order reclamation, or order forfeiture of the Surety Contract, or take such other action as is authorized by law.
12. In the event of forfeiture of the Surety Contract, Operator shall be liable for any additional costs in excess of the surety amount which are required to comply with this Contract. Any excess monies resulting from forfeiture of the Surety Contract, upon completion of reclamation and compliance with this Contract, shall be returned to the rightful claimant.
13. This Contract including the Notice of Intention, as amended and the Reclamation Plan, as amended, represents the entire agreement of the parties involved, and any modification must be approved in writing by the parties involved.
14. Each signatory below represents that he/she is authorized to execute this Contract on behalf of the named party.

OPERATOR:

Teck Cominco American Incorporated
Operator Name

By C. Bruce DiLuzio
Authorized Officer (Typed or Printed)

Vice President, Law and Administration
Authorized Officer - Position

C. Bruce DiLuzio
Officer's Signature

January 2, 2002
Date

STATE OF Washington)
COUNTY OF Spokane) SS:

On the 2nd day of January, 20 02, C. Bruce DiLuzio personally appeared before me, who being by me duly sworn did say that he/~~she~~ is the VP, Law & Administration of Teck Cominco American Incorporated and duly acknowledged that said instrument was signed on behalf of said company by authority of its bylaws or a resolution of its board of directors and said C. Bruce DiLuzio duly acknowledged to me that said company executed the same.

Deborah A. Frost
Notary Public Deborah A. Frost
Residing at Spokane

5/11/03
My Commission Expires:



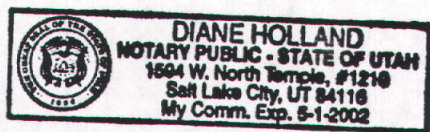
DIVISION OF OIL, GAS AND MINING:

By Lowell P. Braxton
Lowell P. Braxton, Director

2/22/02
Date

STATE OF Utah)
COUNTY OF Salt Lake) ss:

On the 22 day of February, 2002, Lowell P. Braxton
personally appeared before me, who being duly sworn did say that he she, the said Lowell P. Braxton
is the Director of the Division of Oil, Gas and Mining, Department of Natural Resources, State of Utah, and he she duly acknowledged to me that he she executed the foregoing document by authority of law on behalf of the State of Utah.



Diane Holland
Notary Public
Residing at: Salt Lake City, Utah

May 1, 2002
My Commission Expires:

ATTACHMENT "A"

Teck Cominco American Incorporated
Operator

Apex Mine
Mine Name

M/053/004
Permit Number

Washington County, Utah

LEGAL DESCRIPTION

Include 1/4, 1/4, 1/4 sections, townships, ranges and any other descriptions that will legally determine where disturbed lands are located. Attach a topographic map of suitable scale (max. 1 inch = 500 feet; 1 inch = 200 feet or larger scale is preferred) showing township, range and sections and a clear outline of the disturbed area boundaries tied to this Reclamation Contract and surety.

The detailed legal description of lands to be disturbed includes portions of the following lands not to exceed 09.0 acres under the approved permit and surety, as reflected on the attached map labeled Apex Mine - Hecla Mining Company and dated 8/24/84:

SE/4 of SE/4, Section 1, T43S, R18W
SW/4 of SW/4 and SE/4 of SW/4, Section 6, T43S, R17W
Washington County, Utah

TECK COMINCO AMERICAN INCORPORATED

Officers:

C. B. DiLuzio
Vice President, Law and Administration

C. B. DiLuzio
Secretary

D. H. Horswill
Vice President, Corporate Affairs

D. A. Thompson
President

R. A. Brain
Vice President, Marketing & Sales

R. M. Henningson
Vice President, Mining

R. A. Millos
Controller & Treasurer



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
(801) 538-5340 telephone
(801) 359-3940 fax
(801) 538-7223 TTY
www.nr.utah.gov

Michael O. Leavitt
Governor
Robert L. Morgan
Executive Director
Lowell P. Braxton
Division Director

October 14, 2003

CRR: 7099 3400 0016 8896 3427

David W. Godlewski
Teck Cominco American, Inc.
15918 East Euclid Avenue
Spokane, Washington 99216

Re: Formal Approval of Replacement Reclamation Surety. Teck Cominco American Inc., Apex Mine, M/053/004, Washington County, Utah

Dear Mr. Godlewski:

On October 8, 2003, the Director of the Division of Oil, Gas and Mining formally approved the form and amount of replacement reclamation surety for Teck Cominco's Apex mine. On September 16, 2003, we received notification from St. Paul Fire and Marine Insurance Company that they were canceling surety bond # _____ for the Apex Mine. On October 2, 2003, we received the replacement bond _____ issued by Safeco Insurance Company of America. The surety is escalated to year 2007; therefore, the surety amount of \$57,300 did not need to be changed at this time.

The Division hereby grants its final approval of the replacement reclamation surety for the Apex Mine. We have enclosed copies of the fully signed and executed surety bond for your files. Also enclosed is a copy of page 2 of the Reclamation Contract, which has been changed to reflect the new surety company and policy number as authorized in your telephone conversation with Doug Jensen. No other changes were required on the Reclamation Contract. Also enclosed is the original St. Paul Fire & Marine bond ; _____ with two riders, for your disposal or return to the surety company.

Thank you for your help in replacing this surety bond in such an expeditious manner. Please call me or Doug Jensen at (801) 538-5286 or 538-5382 respectively, if you have any questions in this regard.

Sincerely,

D. Wayne Hedberg, Permit Supervisor
Minerals Regulatory Program

DWH:DJ:jb

Enclosure: copy of Safeco bond, page w of RC, original St. Paul bond w/riders
O:\M053-Washington\M0530004-ApexMine\Final\apvl-replacesurety-10142003.doc

Utah!
Where ideas connect

UNITED STATES POSTAGE

USPS
Permit No. G-10

"OPERATOR'S REGISTERED AGENT":

Name)

(Address)

(Phone)

C T Corporation System

50 West Broadway 8th Floor

Salt Lake City, Utah 84101-2006
(801) 364-5101

"OPERATOR'S OFFICER(S)":

See Attached

SURETY":

(Form of Surety - Attachment B)

Surety Bond

"SURETY COMPANY":

(Name, Policy or Acct. No.)

Safeco Insurance Company of America

"SURETY AMOUNT":

(Escalated Dollars)

\$57,300

"ESCALATION YEAR":

2007

"STATE":

State of Utah

"DIVISION":

Division of Oil, Gas and Mining

"BOARD":

Board of Oil, Gas and Mining

ATTACHMENTS:

A "DISTURBED AREA":

B "SURETY":

This Reclamation Contract (hereinafter referred to as "Contract") is entered into between Teck Cominco American Incorporated the "Operator" and the Utah State Division of Oil, Gas and Mining ("Division").

WHEREAS, Operator desires to conduct mining operations under Notice of Intention (NOI) File No. M/053/004 which has been approved by the Utah State Division of Oil, Gas and Mining under the Utah Mined Land Reclamation Act, Sections 40-8-1 et seq., Utah Code Annotated, (1953, as amended) (hereinafter referred to as "Act") and implementing rules; and

WHEREAS, Operator is obligated to reclaim that area described as the Disturbed Area as set forth and in accordance with Operator's approved Reclamation Plan, and Operator is obligated to provide surety in form and amount approved by the Division, to assure reclamation of the Disturbed Area.

APPROVED

OCT 14 2003

DIV. OIL GAS & MINING

ATTACHMENT B

MR FORM 6
Joint Agency Bonding Form

(June 7, 1995)

Bond Number _____
Permit Number M/053/004
Mine Name Apex Mine

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
(801) 538-5340

RECEIVED

OCT - 2 2003

DIV OF OIL GAS & MINING

THE MINED LAND RECLAMATION ACT

SURETY BOND

The undersigned Teck Cominco American Incorporated as Principal,
and Safeco Insurance Company of America as Surety, hereby jointly and severally
bind ourselves, our heirs, administrators, executors, successors and assigns unto the State of Utah,
Division of Oil, Gas and Mining, and _____ in the
penal sum of fifty-seven thousand, three dollars (\$ 57,300.00).
hundred and 00/100

Principal has estimated in the Mining and Reclamation Plan approved by the Division
of Oil, Gas and Mining on the 24th day of August, 19 84, that 9 acres of
land will be disturbed by this mining operation in the State of Utah.

A description of the disturbed land is attached as "Attachment A" to the
Reclamation Contract of which this document is an integral part.

The condition of this obligation is that if the Division determines that Principal has
satisfactorily reclaimed the disturbed lands in accordance with the approved Mining and
Reclamation Plan and has faithfully performed all requirements of the Mined Land Reclamation
Act, and complied with the Rules and Regulations adopted in accordance therewith, then this
obligation shall be void; otherwise it shall remain in full force and effect.

If the Mining and Reclamation Plan provides for periodic partial reclamation of the
disturbed lands, and if the lands are reclaimed in accordance with such Plan, Act and regulations,
then Principal may apply for a reduction in the amount of this Surety Bond.

Signature

Tiffany C. Hankins

Bond Number _____
Permit Number M/053/004
Mine Name Apex Mine
Other Agency File Number _____

SO AGREED this 8 day of October, 2003.

Lowell P. Braxton
Lowell P. Braxton, Director
Utah State Division of Oil, Gas and Mining

*NOTE: Where one signs by virtue of Power of Attorney for a Surety Company, such Power of Attorney must be filed with this bond. If the Principal is a corporation, the bond shall be executed by its duly authorized officer.

AFFIDAVIT OF QUALIFICATION

On the 9th day of September, 192003, personally appeared before me Tiffany C. Hawkins who being by me duly sworn did say that he/she, the said individual - Tiffany C. Hawkins is the Attorney in Fact of Silver Fox Co. of America and duly acknowledged that said instrument was signed on behalf of said company by authority of its bylaws or a resolution of its board of directors and said Tiffany C. Hawkins duly acknowledged to me that said company executed the same, and that he/she is duly authorized to execute and deliver the foregoing obligations; that said Surety is authorized to execute the same and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertaking and obligations.

Signed: Tiffany C. Hawkins
Surety Officer, Tiffany C. Hawkins

Title: Attorney in Fact

STATE OF Washington)
COUNTY OF State At large) ss:

Subscribed and sworn to before me this 9th day of September, 192003.

David J. B. Jones
Notary Public

Residing at: Seattle, Washington

My Commission Expires:

9/1, 192007



SAFECO

POWER
OF ATTORNEY

SAFECO INSURANCE COMPANY OF AMERICA
GENERAL INSURANCE COMPANY OF AMERICA
HOME OFFICE: SAFECO PLAZA
SEATTLE, WASHINGTON 98185

No. 2040

KNOW ALL BY THESE PRESENTS:

That SAFECO INSURANCE COMPANY OF AMERICA and GENERAL INSURANCE COMPANY OF AMERICA, each a Washington corporation, does each hereby appoint

*****DAVID J. BUELOW; DONNA M. MITCHELL-KEENE; TIFFANY C. HAWKINS; GAIL SCOTT; Seattle, Washington*****

its true and lawful attorney(s)-in-fact, with full authority to execute on its behalf fidelity and surety bonds or undertakings and other documents of a similar character issued in the course of its business, and to bind the respective company thereby.

IN WITNESS WHEREOF, SAFECO INSURANCE COMPANY OF AMERICA and GENERAL INSURANCE COMPANY OF AMERICA have each executed and attested these presents

this 28th day of March, 2003

Christine Mead

CHRISTINE MEAD, SECRETARY

Mike McGavick

MIKE MCGAVICK, PRESIDENT

CERTIFICATE

Extract from the By-Laws of SAFECO INSURANCE COMPANY OF AMERICA
and of GENERAL INSURANCE COMPANY OF AMERICA:

"Article V, Section 13. - FIDELITY AND SURETY BONDS ... the President, any Vice President, the Secretary, and any Assistant Vice President appointed for that purpose by the officer in charge of surety operations, shall each have authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute on behalf of the company fidelity and surety bonds and other documents of similar character issued by the company in the course of its business... On any instrument making or evidencing such appointment, the signatures may be affixed by facsimile. On any instrument conferring such authority or on any bond or undertaking of the company, the seal, or a facsimile thereof, may be impressed or affixed or in any other manner reproduced; provided, however, that the seal shall not be necessary to the validity of any such instrument or undertaking."

Extract from a Resolution of the Board of Directors of SAFECO INSURANCE COMPANY OF AMERICA
and of GENERAL INSURANCE COMPANY OF AMERICA adopted July 28, 1970.

"On any certificate executed by the Secretary or an assistant secretary of the Company setting out,

- (i) The provisions of Article V, Section 13 of the By-Laws, and
- (ii) A copy of the power-of-attorney appointment, executed pursuant thereto, and
- (iii) Certifying that said power-of-attorney appointment is in full force and effect,

the signature of the certifying officer may be by facsimile, and the seal of the Company may be a facsimile thereof."

I, Christine Mead, Secretary of SAFECO INSURANCE COMPANY OF AMERICA and of GENERAL INSURANCE COMPANY OF AMERICA, do hereby certify that the foregoing extracts of the By-Laws and of a Resolution of the Board of Directors of these corporations, and of a Power of Attorney issued pursuant thereto, are true and correct, and that both the By-Laws, the Resolution and the Power of Attorney are still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of said corporation

this 9th day of September, 2003



Christine Mead

CHRISTINE MEAD, SECRETARY

EXHIBIT B

IMPORTANT NOTICE TO SURETY BOND CUSTOMERS REGARDING THE TERRORISM RISK INSURANCE ACT OF 2002

As a surety bond customer of one of the SAFECO insurance companies (SAFECO Insurance Company of America, General Insurance Company of America, First National Insurance Company, American States Insurance Company or American Economy Insurance Company), it is our duty to notify you that the Terrorism Risk Insurance Act of 2002 extends to "surety insurance". This means that under certain circumstances we may be eligible for reimbursement of certain surety bond losses by the United States government under a formula established by this Act.

Under this formula, the United States government pays 90% of losses caused by certified acts of terrorism that exceed a statutorily established deductible to be paid by the insurance company providing the bond. The Act also establishes a \$100 billion cap for the total of all losses to be paid by all insurers for certified acts of terrorism. Losses on some or all of your bonds may be subject to this cap.

This notice does not modify any of the existing terms and conditions of this bond, the underlying agreement guaranteed by this bond, any statutes governing the terms of this bond or any generally applicable rules of law.

At this time there is no premium change resulting from this Act.

Strength Through Diversity

Zinc
Coal
Copper
Gold

Teck Cominco is a diversified mining and refining company, mining zinc, lead, copper, gold and metallurgical coal, as well as producing zinc, lead and a number of by-product metals and chemicals through its two refining facilities in Canada and Peru.

Teck Cominco held interests in eight producing mines in Canada, the U.S. and Peru, including both open-pit and underground operations, at the end of 2002. Early in 2003 this was expanded to include an additional five open-pit coal mines managed by Teck Cominco under a new partnership. Two new underground mines producing zinc and gold are also planned to be in production in 2004 and 2005 respectively.

Teck Cominco's strengths are its diversity, in products as well as balanced mining and refining expertise; its leading position in zinc with interests in the Red Dog and Antamina mines, the largest and third largest zinc mines in the world; and its position as manager of the world's second largest metallurgical coal business.

The company's mission is to build upon these strengths and lead the industry in professional integrity and responsibility, creating value for our shareholders and the communities in which we operate.

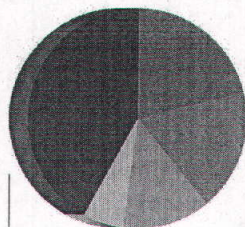
Contents

1	Location Map
2	Highlights
3	Letter from Chairman
5	Letter from the CEO
10	Corporate Governance
12	Operations
20	Reserve and Resource Tables
22	Markets
24	Exploration
25	Development Projects
25	Technological Innovation
26	Environment, Health and Safety
27	Management Discussion and Analysis and Financial Review
37	Financial Statements
57	Comparative Ten Year Figures
58	Directors
60	Corporate Information
IBC	Officers

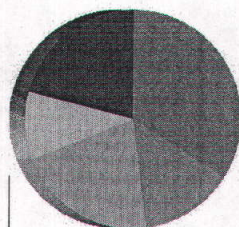
Annual Meeting

The annual meeting
of the shareholders
will be held at 11:00
A.M., April 23, 2003 in
Waterfront Ballroom C,
Fairmont Waterfront Hotel,
900 Canada Place Way,
Vancouver, British Columbia.

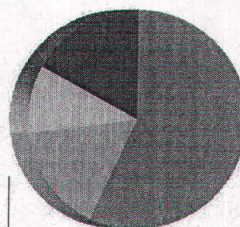
2002 Operations at a Glance



Revenue
\$2.19 Billion

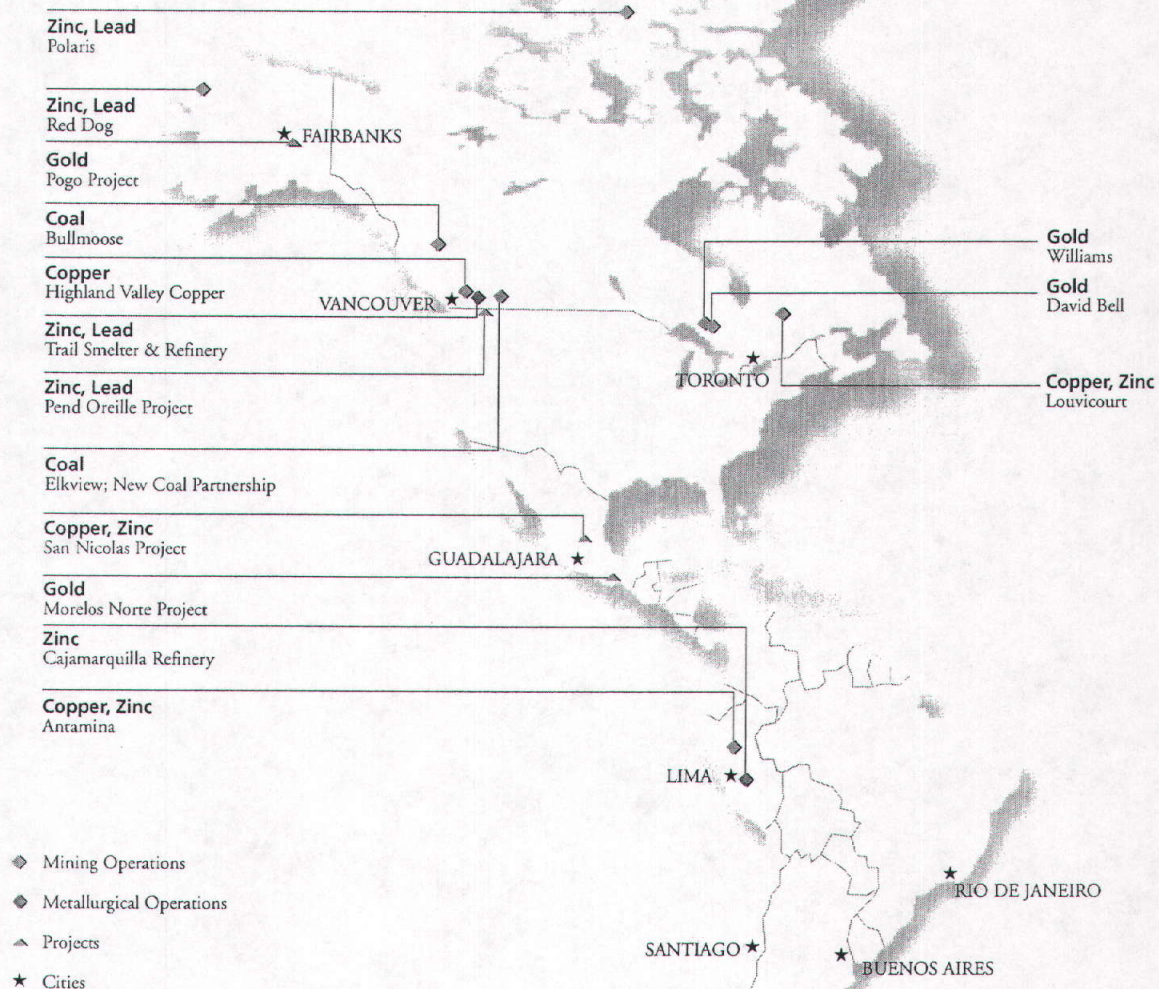


Cash Operating Profit
\$382 Million



Net Operating Profit
\$183 Million

Coal
Zinc Mining
Copper
Gold
Refining



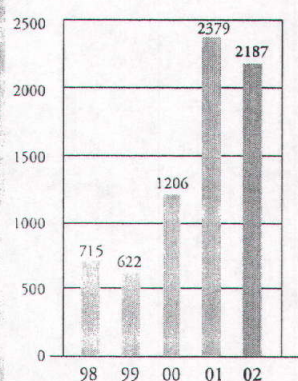
Financial Highlights

(\$ millions, except per share data)	2002	2001
Revenue	\$ 2,187	\$ 2,379
Cash operating profit:		
Smelting and refining (including power sales)	\$ 82	\$ 287
Zinc	50	87
Copper	82	90
Gold	36	69
Coal	128	98
Other	4	(3)
Total	\$ 382	\$ 628
Net earnings (before asset writedowns)	\$ 30	\$ 101
Net earnings (loss) (after writedowns)	\$ 30	\$ (21)
Earnings per share (before asset writedowns)	\$ 0.15	\$ 0.69
Earnings (loss) per share (after writedowns)	\$ 0.15	\$ (0.17)
Capital expenditures	\$ 187	\$ 346
Cash flow from operations	\$ 201	\$ 418
Net debt to net debt plus equity	26%	25%

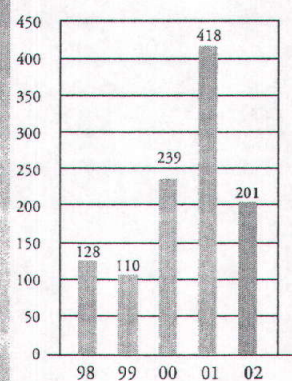
Operating Highlights

- First complete financial year since the merger; company profitable in every quarter and in a strong financial position.
- First full year for Antamina; mine profitable despite low base metal prices.
- Coal the most profitable product, followed by copper, zinc refining and gold.
- New Coal Partnership, managed by Teck Cominco, to be world's second largest producer of metallurgical coal.

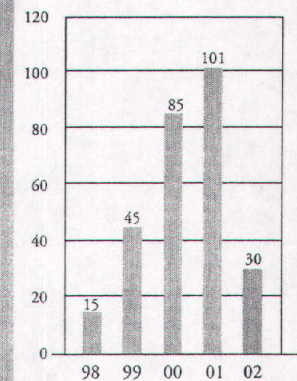
Revenue
\$millions



Cash Flow
\$millions



Net Earnings (before asset writedowns)
\$millions





Revegetation on inactive waste dump, Bullmoose Mine

Teck Cominco is committed to sound and responsible business practices in every aspect of its activities. A detailed description of the company's progress in the environment, health, safety and community fields can be found in the Sustainability Report available at www.teckcominco.com/environment/sustain.htm.

The Board's Environment, Health and Safety Committee sets policies and oversees management of environmental, social and safety performance for the company. Management, through a committee chaired by the CEO, establishes priorities and directions for the environmental, health and safety programs.

In 2002, Teck Cominco received recognition from a number of agencies. The company won the British Columbia Mine Reclamation award for its voluntary cleanup work at the site of the old Bluebell mine. The company also won the annual British Columbia citation for excellence for the reclamation work under way at the Bullmoose coal mine.

At the international level, Compañía Minera Antamina (jointly owned by Teck Cominco, Noranda, BHP Billiton and Mitsubishi) was ranked by an independent survey as the best

mining company in Peru with respect to social and environmental responsibility. Refinería de Cajamarquilla received special recognition for its support of a major archaeological excavation in the vicinity of the refinery.

The State of Oregon recognized Teck Cominco's reclamation of the Glenbrook Nickel site in Riddle, Oregon, awarding the company a special citation of excellence. The U.S. Coast Guard offered a public commendation to Foss Maritime and the Red Dog mine for their excellent efforts to secure and recover, without environmental incident, a barge which broke loose during a storm at the Red Dog port on the Chukchi Sea.

During the year, the company had to deal with some very difficult situations. At Antamina an incident involving the collapse of a large pile of sediments from Lake Antamina led to a fatality and considerable damage to equipment. This incident was fully investigated and new procedures have been put in place to reinforce the importance of working in a safe and responsible manner.

A committee from the community of Kivalina near the Red Dog mine brought proceedings against Teck Cominco Alaska alleging violations of the *Clean Water Act* and the mine's water discharge permits. The vast majority of the alleged incidents were permitted through Compliance Orders issued by the EPA, and Teck Cominco Alaska has worked closely with the regulatory authorities and NANA to meet the concerns of the community of Kivalina.

Continual improvement in environment, health and safety performance remains the company's key goal. Our objectives for 2003, which are set out in the Sustainability Report, are based on this goal.

Teck Cominco Health & Safety Statistics				
	1999	2000	2001	2002
Lost Time Accidents	193	186	105	89
Fatalities	-	1	2	2
Frequency*	2.1	2.4	1.7	1.1
Severity**	63.7	137.3	240.5	186.7

* Frequency = Lost Time Accidents per 200,000 Hours Worked

** Severity = Days Lost per 200,000 Hours Worked (Contractors not included)

UTAH
ADMINISTRATIVE CODE
1987-1988

VOLUME 3

**The Complete Administrative Rules
of the State of Utah**

Effective as of July 1, 1987

Compiled by
The Utah Division of Administrative Rules
Department of Administrative Services

Norman H. Bangerter, Governor

Dr. William S. Callaghan
Director and General Editor

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VOLUME 3

TABLE OF CONTENTS

R471-530. Industrial Commission of Utah

R490. Utah Occupational Safety and
Health [UOSH]
[Continued from Volume 2]

R531-R560. Insurance Department

R561-600. Office of the Lieutenant Governor [No Rules]

R601-660. Department of Natural Resources

R602. Energy Office
R606. Utah Geological and Mineral
Survey [UGMS]
R608. Wildlife Resources
R613-R619. Oil, Gas and Mining
[OGM]
R613. Non Coal
R614. Coal
R615. Oil and Gas
R618. Abandoned Mine
Reclamation
R619. Procedural - Board
R620. Parks and Recreation
R625. Water Rights
R630. Water Resources
R632. Lands and Forestry

R661-R670. Personnel Review Board

R671-690. Office of Planning and Budget

R691-749. Department of Public Safety

R700. Administration
R707. Fire Marshall
R712. Drivers License Services
R715. Peace Officer Standards and
Training [P.O.S.T.]
R725. Law Enforcement Services
R726. Criminal Identification
R732. Regulatory Licensing
R735. Highway Patrol

R750-760. Public Service Commission

R761-770. Board of Regents

R771-800. State Retirement Office [No Rules]

entire state when they find that such action is necessary to effectuate proper management, conservation and control.

1-4-2 Close or open areas to fishing, hunting, trapping, or other harvest; establish refuges and preserves; prescribe the means by which harvest may be accomplished; and control the transportation and storage of all wildlife or parts of the same, within the boundaries of the State of Utah and the shipment or transportation into or out of the state.

1-4-3 Establish or change bag limits and possession limits.

1-4-4 Determine the hours of the day during which fishing, hunting, trapping, or other harvest may take place.

1-4-5 Establish the use, forms and fees of permits, tags and certificates of registration.

1-4-6 Prescribe safety measures and establish other regulations as may be deemed necessary in the interest of wildlife, conservation and the safety and welfare of users, landowners and the public.

R608-1-5.

Proclamations of the respective boards shall be issued in accordance with the following procedure:

1-5-1 The Division of Wildlife Resources is empowered to investigate and determine the facts relative to the wildlife resources of the state. Upon a determination of these facts, the division shall draft proclamations for consideration by the respective boards.

1-5-2 Prior to enactment of a proposed proclamation, the Wildlife Board in accordance with Section 23-14-4 of the Wildlife Resources Code of Utah shall review the proposed proclamation at one or more public meetings.

1-5-3 Prior to enactment of a proposed big game hunting proclamation the Board of Big Game Control in accordance with Section 23-14-6 of the Wildlife Resources Code of Utah shall hold at least one public meeting in each wildlife district of the state.

1-5-4 Prior to public meetings of the respective boards notice of such meetings shall be printed in the Utah State Bulletin of the Office of Administrative Rules.

1-5-5 Proclamations shall be officially enacted by a majority vote of the respective boards.

1-5-6 Any proclamation of the Wildlife Board, signed by the Chairman and Secretary, or the Board of Big Game Control, signed by the Chairman, filed in the office of the Division of Wildlife Resources and published in accordance with 1-5-7 below, shall be deemed to have been duly adopted and promulgated.

1-5-7 Officially enacted proclamations shall be printed and distributed to the public through wildlife license agents and offices of the Division of Wildlife Resources.

R608-1-6.

Proclamations enacted under the provisions of this rule shall have the full force and effect of law.

1987 23-14-3, 23-14-4, 23-14-6, 23-14-18 - 20, 23-15-

2

R613-619. Oil, Gas and Mining

R613. Noncoal

R614. Coal

R615. Oil and Gas

R618. Abandoned Mine Reclamation

R619. Procedural - Board

R613. Noncoal

R613-1M. Rules Applicable to the Reclamation of Lands Mined for Minerals in Utah

R613-1M. Rules Applicable to the Reclamation of Lands Mined for Minerals in Utah

R613-1M-1. General Rules

R613-1M-2. Definitions

R613-1M-3. Notice of Intention to Commence Mining Operations

R613-1M-4. Notice to Public and Interested Parties (Except as Provided in Section 40-8-23 of the Mined Land Reclamation Act)

R613-1M-5. Surety Guarantee

R613-1M-6. Plans and Maps

R613-1M-7. Notification of Suspension of Operations

R613-1M-8. Reports

R613-1M-9. Practice and Procedure

R613-1M-10. Reclamation Standards

R613-1M-1. General Rules

The following have been adopted by the Division of Oil, Gas and Mining and are general rules of statewide application made pursuant to the Mined Land Reclamation Act of 1975. Special rules, regulations, and orders will be issued when necessary or advisable after notice and hearing, and shall prevail as against these general rules, if in conflict therewith.

R613-1M-2. Definitions

The following definitions will apply to the rules and regulations of the Mined Land Reclamation Act:

(a) "Deposit" means a natural accumulation of mineral matter in the form of consolidated rock or unconsolidated material, chemical, or organic materials commingled, in solution or otherwise occurring on the surface, beneath the surface, or in the waters of the land from which any product useful to man may be produced, extracted, or obtained. "Deposit" excludes water, geothermal steam, and oil and gas as defined in Chapter 6 of Title 40, but shall include oil shale and bituminous sands extracted by mining operations.

(b) "Development" means the work performed in relation to a deposit following its discovery but prior to production mining operations, aimed at, but not limited to, preparing the site for mining operations, defining further the ore deposit by drilling or other means, conducting pilot plant operations, constructing roads or ancillary facilities, and other activities related to same.

(c) "Exploration" means the act of searching for, or investigating a mineral deposit, including activities for identifying regions or specific areas in which mineral deposits are most likely to exist. "Exploration" includes, but is not limited to; aerial and ground surveys; sinking shafts; tunneling; drilling core and bore holes and digging pits or cuts, and other works for the purpose of extracting samples prior to commencement of development or production mining operations; and the building of roads, access ways, and other facilities related to such work. "Exploration" does not include reconnaissance activities where power machinery, power tools, or explosives are not used.

(d) "Land Affected" means the surface and sub-surface of an area within the state where mining operations are being or will be conducted, including, but not limited to: onsite private ways, roads, and railroad lines appurtenant to any such area; land excavations; exploration sites; drill sites or workings; refuse banks or spoil piles; evaporation or settling ponds or dumps; work, parking, storage, or placer areas; tailings ponds or dumps; work, parking, storage, or waste discharge areas; areas in which structures, facilities, equipment, machines, tools, or other materials or property which result from or are used in such operations, are situated. All lands shall be excluded that would be otherwise includable as land affected but which have been reclaimed in accordance with an approved plan or otherwise, as may be approved by the Board, and lands in which mining operations have ceased prior to July 1, 1977.

(e) "Mining Operation(s)" means those activities conducted on the surface of the land for the exploration for, development of, or the extraction of a mineral deposit from its natural occurrences, including, but not limited to, surface mining and the surface effects of underground and in-situ mining, including onsite transportation, concentrating, milling, evaporation, and other primary processing. It does not include: the extraction of hydrocarbons in a liquid or gaseous state by means of wells or pipe; the extraction of geothermal steam, smelting, refining, manufacturing and related operations; off-site operations and transportation; or any operations which would otherwise be included under mining operations but to which less than 500 tons of mineral and/or nonmineral bearing materials are mined in a period of 12 consecutive months or where less than two acres of land are excavated or used as a disposal site in a period of 12 consecutive months.

(f) "Onsite" means the surface land area within which mining operations are or will be conducted under a Notice of Intention to Commence Mining Operations and which is bounded by continuous property lines defining surface land ownership, control, or right that is vested in the operator. A series of related properties under the control of a single operator but separated by small parcels of land controlled by others will be considered a single site unless excepted by the Division.

(g) "Off-site" means the land areas that are outside of, or beyond the onsite land which is owned or controlled by the operator.

(h) "Operator" means any natural person, corporation, association, partnership, receiver, trustee, executor, administrator, guardian, fiduciary, agent, or other organization or representative of any kind, either public or private, owning, controlling, or managing a mining operation or proposed mining operation, including exploring for or developing of a mineral deposit.

(i) "Reclamation" means actions performed during or after mining operations to shape, stabilize, revegetate, or otherwise treat the land affected in order to achieve a safe, stable, ecological condition and use which will be consistent with local environmental conditions.

(j) "Regrade or Grade" means to change the topography of any land surface.

(k) "Toxic" means any chemical or biological or adverse characteristic of the material involved which could reasonably be expected to negatively affect ecological or hydrological systems or could be hazardous to the public safety and welfare.

ardous to the public safety and welfare.

(l) "Surface Mining Operations" means those mining operations conducted on the surface of the land including open pit, strip, or auger mining, dredging, quarrying, leaching, surface evaporation operations, and activities related thereto.

(m) "Underground Mining" shall mean those mining operations carried out beneath the surface by means of shafts, tunnels, or other underground mine openings.

R613-1M-3. Notice of Intention to Commence Mining Operations

Before any operator shall commence mining operations, or continue mining operations pursuant to Section 40-8-23 of the Mined Land Reclamation Act, and except as provided for in Rule M-3(5), the operator shall file with the Division Form MR-1. As part of said Notice of Intention to Commence Mining Operations, the operator shall, unless waived by the Division, furnish the following:

1. A true or correct map or plat showing the location of the land affected by the operation or proposed operations. Such map or plat shall:

(a) Show by appropriate markings, if possible, the location of the land affected and the total number of surface acres involved.

(b) Within the interior limits of the land affected, show existing active or inactive, underground or surface mined areas; the boundaries of surface properties; and the names of surface and mineral owners.

(c) Be of such scale as prescribed in Rule M-6.

(d) Show the names and locations of all lakes, rivers, reservoirs, streams, creeks, springs, or other bodies of public water, roads, buildings, abandoned or active surface facilities, and transmission lines on the land affected and within 500 feet of the exterior limits of the land affected.

(e) Show the drainage plan on and away from those areas from which the overburden or topsoil will be or has been removed, or will be or has been covered by the nonmineral bearing country rock or which, by virtue of their use are susceptible to excessive erosion. Such plan shall indicate the directional flow of water, constructed drainways, natural waterways used for drainage, and the streams or tributaries receiving or to receive this discharge.

(f) Show the general location and present status of known test borings or core holes. Indicate depth of the various water bearing strata encountered; the thickness of the mineral deposits where applicable, and the thickness and depth of the toxic materials encountered as well as the depth and thickness of plant support material taken from those holes which are representative of the area to be utilized.

(g) Show the location of the storage area for topsoil, and the disposal area for overburden, waste, tailings, or rejected materials and water.

(h) If any, describe water to be disposed of, giving in general terms, expected acid or salt content and expected impact on downstream water systems.

Information provided in the Notice of Intention and its attachments relating to the location, size, or nature of the deposit, and marked confidential by the operator, shall be protected as confidential information by the Board and the Division and not be a matter of public record in the absence of a written release from the operator, or until the mining operation has been terminated as provided in subsection 40-8-21(2) of the Act.

2. A plan for the reclamation of the land affected

unless a waiver is specifically granted by the Division, each such plan shall include the following (see Form MR-1):

(a) A statement of known prior and current uses to which the land was put, including estimates of current surface resources and its capabilities to support a variety of uses or potential uses.

(b) The possible uses for the land following termination of mining operations.

(c) The manner in which the overburden, topsoil, tailings, waste, and rejected materials will be deposited.

(1) Where conditions permit, the manner in which the plant supporting materials will be conserved and restored. If no such material exists, an explanation of said conditions shall be given.

(2) An explanation of how toxic or otherwise unsuitable materials will be segregated and disposed of.

(d) Where grading, backfilling, compaction, etc., of the soil or fill is desirable, the manner and extent of how such will be accomplished shall be explained.

(e) A planting program as best calculated to revegetate the land affected. Where there is no original protective cover, an alternate practical procedure should be proposed to minimize or control erosion or siltation. When applicable, the objective in revegetation should be to stabilize the land as quickly as possible after it has been disturbed in order to achieve permanent and protective vegetative cover. Nonnoxious native plants that will give a quick, permanent, protective cover and enrich the soil shall be given priority.

(f) A timetable for the accomplishment of each major step in the reclamation plan.

(3) State the general details of the type or method of mining proposed.

(4) Within 30 days from the receipt of the Notice of Intention to Commence Mining Operations, except as provided for in Section 40-8-23 of the Act, the staff of the Division shall review the same and shall make such inquiries, inspections, or examinations as may be necessary or desirable for proper evaluation of the information expressly required by this rule. The operator shall be promptly notified of any objections found and he shall be afforded a reasonable opportunity to take such action as may be required to remove the objections or obtain a ruling relative to said objections from the Board.

(5) A letter of intention to commence exploratory drilling shall be required where seismic, core, and stratigraphic tests are drilled for the purpose of identifying and delineating mineral deposits. Activities also included are: digging pits, trenches, or cuts and other works; and the building of roads, access ways, air strips, and other facilities related to exploration drilling. The letter of intention to commence exploration shall be submitted prior to exploration and the Division shall review and request any changes in the proposed plan within fifteen (15) days after it is filed. All information in the letter relating to the location, size, or nature of the deposit will be held confidential by the Division unless released by written permission from the operator. The letter shall include the following information:

(a) The location of all planned drill holes, cuts and roadways, air strips, or other ground disturbances related to the operation. The drill holes, other than seismic shot holes, must be identified and located to the quarter section, either by narrative or

map. The general area of possible step out holes, and/or seismic holes, should be described. The access ways to the drill holes can be described by map or narrative.

(b) The general dimensions of all drill holes.

(c) The plugging program for all drill holes.

(1) All drill holes 2 1/2 inches or larger in diameter at the surface shall be plugged in the subsurface with material suitable in the discretion of the Division, to prevent the migration of water, gas, oil, or other substances from one strata to another.

(2) Irrespective of any water, oil, gas, or other potential migratory substance found, all drill holes shall be plugged at the surface with a plug consisting of at least five feet of cement. Other methods given prior approval by the Division may be used if such site specific or procedure specific exceptions are warranted.

(d) The reclamation plans for all ground disturbances related to the operation. All ground disturbances not having continuing postoperation use shall be reclaimed in such a manner compatible with local conditions as approved by the Division.

Report Form MR-9 shall be filed with the Division for all mineral exploration work undertaken and approved within the limits of this rule. It shall not be filed in lieu of reporting requested under Rule M-8.

All drill holes made as step outs to an initial proposed drilling program should be described as in (a) through (d) above to the Division as soon as possible. The additional information may be filed as an addendum to the original notice and will not require approval.

R613-1M-4. Notice to Public and Interested Parties (Except as Provided in Section 40-8-23 of the Mined Land Reclamation Act)

Within 30 days after receipt of the Notice of Intention or within 30 days following the last action of the operator or the Division on the Notice of Intention, the Division shall reach a tentative decision with respect to the approval of the Notice of Intention, whereupon the information relating to the surface of the land affected and the tentative decision shall be forwarded to the operator and be published, in abbreviated form, one time only, in all newspapers of general circulation published in the county or counties where the land affected is situated and in a daily newspaper of general circulation in Salt Lake City, Utah. A copy of the abbreviated information and tentative decision shall also be mailed to the zoning authority of the county or counties in which the land affected is situated and to the owner or owners of record of the land affected and an affidavit of mailing shall be submitted by the Division. Any person or agency affected by the tentative decision may file a written protest with the Division, setting forth factual reasons for his complaint. If no factual written protests from adversely affected interests are received by the Division within 30 days after the last date of publication, the tentative decision on the Notice of Intention shall become final and the operator will be so notified. If written objections of substance are received, a hearing shall be held before the Board in accordance with 40-8-8 of the Act, following which the Board shall issue its decision.

R613-1M-5. Surety Guarantee

After receiving notification that the Notice of Intention to Commence Mining Operations has been approved, but prior to commencement of operation,

ions, the operator shall provide surety to the Division unless surety acceptable to the Board has previously been filed with the Division of State Lands or an agency of the federal government for the purpose of assuring an acceptable degree of land reclamation as outlined in the Approved Notice.

In determining the amount of surety to be provided, the Board shall consider among other things, factual information and recommendations provided for reclamation activities planned for the land affected and the nature, extent, and duration of operations under the approved notice. The Board shall approve a fixed amount estimated as required at any point in time covered by the Notice of Intent to complete reclamation.

Liability under surety provisions shall continue until such time as released as to part, or in its entirety, by the Division.

If the operator fails or refuses to carry out the necessary land reclamation as outlined in the approved Notice of Intention, the Board may, after notice and hearing, declare any surety filed for this purpose forfeited. With respect to the surety filed with the Division, the Board shall request the Attorney General to take the necessary legal action to enforce and collect the amount of liability. Where surety or a bond has been filed with the Division of State Lands or an agency of the federal government, the Board shall certify a copy of the transcript of the hearing to the Division or such agency, together with a request that the necessary forfeiture action be taken. The forfeited surety shall be used only for the reclamation of the land to which it relates, and any residual amount returned to the rightful claimant.

R613-1M-6. Plans and Maps

All maps and plans prepared for submission with the Notice of Intention to Commence Mining Operations shall be of adequate scale and detail to show topographic features and clearly indicate details of the proposed operations in accordance with Rule M-3. A color code, or other legend, shall be used in preparing all maps to clearly indicate surface features of the land affected.

R613-1M-7. Notification of Suspension of Operations

(1) In the case of temporary suspension of mining operations, excluding labor disputes, expected to be in excess of six months, but less than two years duration, the operator shall, within 30 days, notify the Division.

(2) In the case of a termination of mining operations or a suspension of such operations expected to extend for a period of two years, or more, the operator shall furnish the Division with such data as it may require in order to evaluate the status of the mining operation, performance under the reclamation plan, and the probable future status of the mineral deposit and condition of the land affected.

(3) Upon receipt of notification of termination or extended suspension, the Division shall within 30 days cause inspection to be made of the property and take whatever action may be appropriate in furtherance of the purposes of this Act.

(4) The full release by the Division of surety posed under an approved notice of intention shall be prima facie evidence that the operator has fully complied with the provisions of this Act.

R613-1M-8. Reports

(a) Within 30 days after commencement of mining

operations under an approved Notice of Intention, the operator shall give notice of such commencement to the Division.

(b) At the end of each calendar year, unless waived by the Division, each operator conducting mining operations under an approved Notice of Intention shall file an operations and progress report with the Division, on a form prescribed and furnished by the Division, setting forth:

(1) The location of the operation and the number and date of the approved Notice of Intention to Commence Mining Operations to which the operator refers.

(2) The gross amount of materials moved during the year, as well as the disposition of such material.

(3) The current status of the reclamation work performed by month pursuant to the reclamation plan.

(c) In addition to the foregoing, the operator shall include, but not more frequently than annually, an updated map and plan, prepared in accordance with Rule M-3, to the Division. However, it shall be the responsibility of the operator to keep and maintain timely records relating to his performance under the Mined Land Reclamation Act, in such a place and in such a manner so as they may be examined at any time by members of the Division staff.

R613-1M-9. Practice and Procedure

The rules of Practice and Procedure as outlined in the R619 Rules will be applicable for Mined Land Reclamation proceedings before the Board.

R613-1M-10. Reclamation Standards

The following reclamation standards are established where applicable for all work or activity required to be performed in accordance with reclamation plans approved subsequent to June 1, 1978. Mine workings abandoned prior to May, 1975, need not be reclaimed unless said workings are utilized for subsequent operations. Areas on which these standards are proposed to be nonapplicable will be designated on the maps submitted by the operator in accordance with Rule M-6, and may be shown on supplementary ground or air photographs.

Said standards shall apply to all operations covered by a mining and reclamation plan.

1. Land Use - The operator shall abandon the area affected in a condition which is capable of supporting a postmining use that is compatible with probable land uses.

2. Public Safety and Welfare - The operator shall minimize hazards to the public safety and welfare following mining. Methods to minimize hazards shall include but not be limited to:

(a) The closing of shafts and tunnels to prevent unauthorized or accidental entry.

(b) The disposal of trash, scrap metal, and wood, unusable buildings, extraneous debris, and other materials incident to mining in a manner approved by the Division and in accordance with the Rules and Regulations of the Division of Health.

(c) The plugging and capping of drill, core, or other exploratory holes as set forth in Rule M-3(5).

(d) The posting of appropriate warning signs in locations where public access to operations is readily available.

(e) The construction of berms, fences, and/or barriers above highwalls or other excavations when required by the Division.

3. Impoundments - All evaporation, tailings, and sediment ponds, spoil piles, fills, pads, and regraded areas shall be self-draining and nonimp-

ounding when abandoned unless previously approved as an impounding facility by a lawful state or federal agency

4. Slopes - All waste piles, spoil piles, and fills shall, if possible, be regraded to a rounded configuration and they shall be sloped to minimize safety hazards and erosion. The angle of slope from the bottom to the top of the pile or fill can be greater than the surrounding terrain provided that the mass stability of the slope is assured and that the erosion of the slope is minimized by measures such as, but not limited to; terracing, surface drainage facilities, cross-slope ripping or scarifying and vegetation. In no case, shall the slope of a pile or fill exceed the angle of repose of the material or such lesser slope as required by the Division considering such factors as: land use, material properties, revegetation potential, or erosion control.

5. Highwalls - In strip mining or open pit mining and in open cuts for pads or roadways, all such highwalls shall be reclaimed by backfilling against them or by cutting the wall back to achieve a slope of angle of 45° or less. Where the highwall is composed of solid rocks; is designed to be stable utilizing benches, tie-backs, etc.; or, there is insufficient material reasonably available to backfill; or cutting the wall back would result in excessive damage to undisturbed land above the highwall; and, taking into consideration suitable alternative safety measures; future land use, etc.; the Division may modify or waive the above requirements.

6. Toxic Materials - All toxic or potentially toxic material, as defined by Rule M-2(k), shall be safely removed from the site or left in an isolated condition such that solid, liquid or gaseous toxic emissions to the environment are reasonably eliminated or controlled. Such isolation practices may include, but not be limited to burial, subsurface injection, chemical precipitation or neutralization, and filtering. All appropriate regulations of the Division of Health must be complied with as well as federal regulations.

7. Roads and Pads - Onsite roads and pads shall be reclaimed or stabilized when the operator determines that they are no longer needed for operations. The reclamation should include provisions for adequate surface drainage, erosion protection and unrestricted drainage crossings. When a road or pad is to be turned over to an approved continuing use, as determined by the operator, the operator shall turn over the property with adequate surface drainage, structures, ditching, and in a general condition suitable for the continued use.

8. Drainages - All natural channels and associated flood plains shall not be covered, restricted or rerouted by roads, pads, piles, fills or diversions unless specifically approved by the Division after a suitable hydrologic study and incorporating a sound hydraulic design. All drainage structures, sediment or flood control structures, spoil, ore, waste, fill material, and debris must be removed from natural channels and flood plains before an operator abandons the site, except where approved by the Division.

9. Structures and Equipment - All structures, rail lines, utility connections, equipment, and debris shall be removed from the surface prior to regrading and reclamation unless temporarily abandoned or approved by the Division for a continuing use.

10. Shafts and Portals - All shafts and portals shall be covered or closed and all trenches and small pits shall be backfilled or covered when a mine has

been abandoned so as to eliminate any safety hazard.

11. Sediment Control - Mining operations shall be conducted in a manner such that sediment from areas disturbed in mining or reclamation activities is adequately controlled. The degree of sediment control shall be appropriate for the site-specific and regional conditions of topography, soil, drainage, water quality, or other characteristics.

12. Revegetation - Where possible, a self-sustaining vegetative cover consisting of nonnoxious perennial plants shall be established by the operator subsequent to final grading on the entire area affected. Plants shall be a diverse mixture of grasses, shrubs, forbs, and where potential for forestation exists, trees, the mixture may include both native and introduced species. Revegetation shall be performed using professionally accepted methods such as seeding, transplanting, or propagating by cuttings.

(1) The species selection shall reflect the postmining land use as set forth in Rule M-10(1).

(2) Revegetation shall be deemed to be accomplished and successful when:

(a) Species intended for revegetation by this Rule have achieved a surface cover of at least 70% of the representative vegetative communities surrounding the mine. Surrounding vegetative cover levels shall be determined by the operator using professionally accepted inventory methods and be approved by the Division.

(b) The vegetation initiated on the area affected has survived for at least three growing seasons, is evenly distributed, and is not supported by irrigation or continuing soil amendments.

(3) Exceptions to Part 12 may be granted by the Division for areas which consist of solid rock outcrops and it is demonstrated by the operator that sufficient surficial soil does not exist for covering said outcrops. Test plots established by the operator in consultation with the Division shall demonstrate after all practical land treatments have been attempted that the revegetation standards are not attainable.

Practical land treatments may include but not be limited to: scarifying, mulching, fertilization, irrigation, chisel plowing, harrowing, and the introduction of soil mycorrhiza.

13. Dams - All major water impounding structures such as tailings dams, water storage and supply dams, coal waste dams, and major sedimentation control dams shall be reclaimed when abandoned so as to be nonimpounding, self-draining, mechanically stable, and protected from erosion.

14. Soils - Except where slope or rocky terrain make it impossible, all surficial materials, suitable as a growth medium, prior to any major excavation, shall be removed, segregated, and stockpiled according to its ability to support vegetation as determined by soil analysis and/or practical revegetation experience. The stockpiles shall be protected in such a manner as to minimize or prevent wind and water erosion, unnecessary compaction, and contamination by undesirable materials. Redistribution of surficial material after final grading shall be accomplished in such a manner as to promote revegetation success.

15. Appeals to the Board - Any operator who is aggrieved by a decision of the Division in enforcing these standards, may petition the Board for a hearing pursuant to Section 40-8-8.

1987 40-8-1 et seq

R614. Coal

R614-1A. Chapter I - Subchapter A - General - UMC Regulations Pertaining to Surface Effects of Underground Coal Mining Activities

R614-1F. Subchapter F - Areas Unsuitable for Surface Effects of Underground Coal Mining Activities

R614-1G. Subchapter G - Underground Coal Mining Activities Permits and Coal Exploration Procedures Systems

R614-1J. Subchapter J - Bonding and Insurance Requirements for Surface Coal Mining and Reclamation Operations

R614-1K. Subchapter K - UMC Permanent Program Performance Standards

R614-1L. Subchapter L - Inspection and Enforcement Procedures

R614-1M. Subchapter M - Training, Examination, and Certification of Blasters

R614-1P. Subchapter P - Protection of Employees

R614-1Q. Subchapter Q - Applicability of 40-8-1 et seq. and Rules M-1 Through M-10

R614-2A. Chapter II - Subchapter A - General - SMC Regulations Pertaining to Surface Coal Mining Activities

R614-2G. Chapter G - Surface Coal Mining and Reclamation Activities Permits and Coal Exploration Procedures Systems

R614-2J. Subchapter J - Bonding and Insurance Requirements for Surface Coal Mining and Reclamation Operations

R614-2K. Subchapter K - Permanent Program Performance Standards

R614-2L. Subchapter L - Inspection and Enforcement Procedures

R614-2M. Subchapter M - Training, Examination, and Certification of Blasters

R614-2P. Subchapter P - Protection of Employees

R614-2Q. Subchapter Q - Applicability of 40-8-1 et seq. and Rules M-1 Through M-10

R614-1A. Chapter I - Subchapter A - General - UMC Regulations Pertaining to Surface Effects of Underground Coal Mining Activities

R614-1A-700. Part UMC 700 - General

R614-1A-705. Part UMC 705 - Restrictions on State Employees Financial Interest

R614-1A-707. Part UMC 707 - Exemption for Coal Extraction Incident to Government-Financed Highway or Other Construction

R614-1A-700. Part UMC 700 - General
UMC 700.1 Scope

This Chapter I, consisting of Parts UMC 700-900, establishes the procedures through which the Utah State Division of Oil, Gas and Mining will implement those provisions of the Coal Mining Reclamation Act of 1979, (U.C.A. 40-10-1 et seq.) pertaining to surface effects of underground coal mining activities and includes regulations implementing U.C.A. 40-10-8 of the Act pertaining to coal exploration. Regulations pertaining to coal exploration are also set forth in Chapter II. Chapter I is divided into the following subchapters:

(a) Subchapter A contains general introductory information intended to serve as a guide to the rest of the chapter and to the regulatory requirements and definitions generally applicable to the program and persons covered by those provisions of the Act that are applicable to coal exploration and surface effects of underground coal mining activities.

(b) Subchapter F implements those requirements of the Utah Coal Mining Reclamation Act of 1979

for designating certain lands unsuitable for all or certain types of surface effects of underground coal mining activities and for termination of such designations.

(c) Subchapter G governs applications for and decisions on permits for underground coal mining activities and approvals.

(d) Subchapter J sets forth requirements for performance bonds and public liability insurance for underground coal mining activities.

(e) Subchapter K sets forth the environmental and other performance standards which apply to coal exploration and underground coal mining activities. Performance standards applicable to special coal mining situations such as alluvial valley floors and prime farmlands are included.

(f) Subchapter L sets forth the inspection, enforcement, and civil penalty provisions.

(g) Subchapter M will set forth the requirements for training, examination, and certification of blasters.

(h) Subchapter P sets forth the provision for the protection of employees who initiate proceedings under the Act or testify in any proceeding resulting from the administration or enforcement of the Act.

(i) Subchapter Q sets forth the applicability of certain provisions of 40-8, U.C.A. (1953, as amended, (the Utah Mined Land Reclamation Act of 1975)) and Rules M-1 through M-10 to the Utah state program.

UMC 700.2 Notations

This copy of the Regulations Pertaining to Surface Effects of Underground Mining Activities (including regulations for coal exploration) incorporates changes that have been adopted by the Board of Oil, Gas and Mining and approved by the Office of Surface Mining Reclamation and Enforcement through March 1987.

Sections marked with a single asterisk indicate regulations remanded, in whole or in part, by either the Secretary of the Department of the Interior or the U. S. Court of Appeals (Judge Flannery's decisions). Whereas, sections marked with double asterisks indicate regulations suspended, in whole or in part, by the Secretary or the Court.

*Remanded

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UMC 700.5 Definitions

As used in this chapter, the following terms have the specified meanings, except where otherwise indicated:

"Account" means abandoned mine reclamation account established pursuant to 40-10-25 of the Act.

"Act" means Utah Code Annotated U.C.A. 40-10-1 et seq.

"Acid drainage" means water with a pH of less than 6.0 and in which total acidity exceeds total alkalinity, discharged from active, inactive, or abandoned underground coal mining activities or from an area affected by underground coal mining activities.

"Acid-forming materials" means earth materials that contain sulfide minerals or other materials which, if exposed to air, water, or weathering processes, form acids that may create acid drainage.

"Adjacent area" means the area outside the permit area where a resource or resources, determined according to the context in which adjacent area is used, are or reasonably could be expected to be adversely impacted by proposed mining operations, including probable impacts from underground

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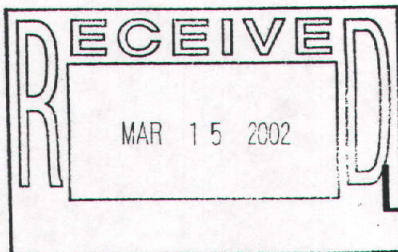
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**The Utah Division of Administrative Rules
Department of Administrative Services**

Michael O. Leavitt, *Governor*
Raylene G. Ireland, *Executive Director of Administrative Services*
Kenneth A. Hansen, *Director of Administrative Rules*
Michael G. Broschinsky, *Administrative Code Editor*

Annotated by the Editorial Staff of the Publisher



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1. The costs and expenses of reclamation, together with costs of collection including attorney's fees, be recovered in a civil action brought by the attorney general against the operator in any appropriate court; or

2. Any surety filed for this purpose be forfeited. With respect to the surety filed with the Division, the Board shall request the Attorney General to take the necessary legal action to enforce and collect the amount of liability. Where surety or a bond has been filed with the Division of Forestry, Fire and State Lands, The School and Institutional Trust Lands Administration or an agency of the federal government, the Board shall notify such agency of the hearing findings, and request that the necessary forfeiture action be taken.

R647-4-115. Confidential Information.

Information provided in the notice of intention relating to the location, size, and nature of the mineral deposit, and marked confidential by the operator, shall be protected as confidential information by the Board and the Division. The information will not be a matter of public record until a written release is received from the operator, or until the notice of intention is terminated.

R647-4-116. Public Notice and Appeals.

1. Public notice will be deemed complete when the following actions have been taken:

(1.) A description of the disturbed area and the tentative decision to approve or disapprove the notice of intention shall be published by the Division in abbreviated form, one time only, in all newspapers of general circulation published in the county or counties where the land affected is situated, and in a daily newspaper of general circulation in Salt Lake City, Utah.

(2.) A copy of the abbreviated information and tentative decision shall also be mailed by the Division to the zoning authority of the county or counties in which the land affected is situated and to the owner or owners of record of the land affected, as described in the notice of intention.

2. Any person or agency aggrieved by the tentative decision may file a written protest with the Division, during the public comment period identified in the notice, setting forth factual reasons for the complaint.

3. If no responsive written protests are received by the Division within 30 days after the last date of publication, the tentative decision of the Division on the notice of intention shall be final and the operator will be so notified.

4. If written objections of substance are received by the Division during the public comment period, a hearing shall be held before the Division in accordance with UCA 40-8-13, following which hearing the Division shall issue its decision.

R647-4-117. Notification of Suspension or Termination of Operations.

1. The operator need not notify the Division of the temporary suspension of mining operations.

2. In the case of a termination or a suspension of mining operations that has exceeded, or is expected to exceed two (2) years, the operator shall, upon request, furnish the Division with such data as it may require to evaluate the status of the mining operation, the status of compliance with these rules, and the probable future status of the land affected. Upon review of such data, the Division will take such action as may be appropriate. The Division may grant an extended

suspension period if warranted by a showing of good cause by the operator.

3. The operator shall give the Division prompt written notice of a termination or suspension of large mining operations expected to exceed five (5) years. Upon receipt of notification, the Division shall, within 30 days, make an inspection of the property.

4. Large mining operations that have been approved for an extended suspension period will be reevaluated on a regular basis. Additional interim reclamation or stabilization measures may be required in order for a large mining operation to remain in a continued state of suspension. Reclamation of a large mining operation may be required after five (5) years of continued suspension. The Division will require complete reclamation of the mine site when the suspension period exceeds 10 years, unless the operator appeals to the Board prior to the expiration of the 10-year period and shows good cause for a longer suspension period.

R647-4-118. Revisions.

1. In order to revise a notice of intention, an operator shall file a Notice of Intention to Revise Large Mining Operations (FORM MR-REV). This notice of intention will include all information concerning the revision that would have been required in the original notice of intention.

2. A Notice of Intention to Revise Large Mining Operations (FORM MR-REV) will be processed and considered for approval by the Division in the same manner as an original notice of intention. The operator will be authorized and bound by the requirements of the existing approved notice until the revision is acted upon and any revised surety requirements are satisfied. Those portions of the approved notice of intention not subject to the revision will not be subject to review under this provision.

3. Large mining operations which have a disturbed area of five (5) acres or less may refile as a small mining operation. Reclaimed areas must meet full bond release requirements before they can be excluded from the disturbed acreage.

R647-4-119. Amendments.

1. An amendment is an insignificant change to the approved notice of intention. The Division will review the change and make the determination of significance on a case-by-case basis.

2. A request for an amendment should be filed on the Notice of Intention to Revise Large Mining Operations (FORM MR-REV). An amendment of a large mining operation requires Division approval but does not require public notice.

R647-4-120. Transfer of Notice of Intention.

If an operator wishes to transfer a mining operation to another party, an application for Transfer of Notice of Intention - Large Mining Operations (FORM MR-TRL), must be completed and filed with the Division. The new mine operator will be required to post a new reclamation surety and must assume full responsibility for continued mining operations and reclamation.

R647-4-121. Reports.

1. On or before January 31 of each year, unless waived in writing by the Division, each operator conducting large mining operations must file an Annual Report of Mining Operations (FORM MR-AR) describing its operations during the preceding calendar year. Form MR-AR, includes:

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References:

History: 9 11/27/91; 15 03/04/94; 15 07/27/98; 21 07/06/99; 2381 2001.

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